

UNIVERSITY OF VICTORIA



*25th Anniversary Edition*

CALENDAR 1988-1989

## INQUIRIES

The University's telephone number is: (area code 604) 721-7211.  
(FAX number is 604-721-8653.)

The University telex number is: 049-7222.

The University's mailing address is: University of Victoria, Box 1700,  
Victoria, British Columbia, Canada, V8W 2Y2.

Inquiries from prospective students in regard to the following should  
be directed to the officer or office shown.

### Admission and Advice About Programs

All Faculties, Schools and Programs, except Law, Graduate Studies:  
Director of Admission Services

Faculty of Law:  
Dean, Faculty of Law

Faculty of Graduate Studies:  
Dean, Faculty of Graduate Studies

### Counselling

Director, Counselling Services

### Financial Aid

Student Financial Aid Office

### Day Care

Coordinator, Day Care Services

### Health Services

Director, Health Services

### Housing and Residence Accommodation

Manager, Housing and Conference Services

### Parking Permits

Manager, Traffic, Security and Motor Pool

### Summer Session

Director, University Extension & Community Relations

### Textbooks

Manager, Bookstore

Inquiries from other persons in regard to the contents of this Calendar  
or the University in general should be directed to the Secretary of Senate.

## OFFICE HOURS

The offices of the University are open throughout the year from 8:30  
a.m. to 4:30 p.m., Monday to Friday, except on statutory holidays.

## UNIVERSITY APPLICATION DEADLINES

### Application for Winter Session

No assurance can be given that applications received after the dead-  
line dates can be processed in time to permit registration in the Winter  
Session. (This does not apply to Law — applications received after  
March 31 will not be considered.)

January 31	School of Nursing (2 year program).
February 28	Faculty of Education (professional year only). School of Social Work.
March 31	Faculty of Law; School of Child Care.
April 30	Health Information Science.
May 31	Applications outside Canada — programs other than those listed above. Faculty of Education Faculty of Engineering Faculty of Graduate Studies.
July 15	Applicants in Canada — programs other than those listed above.
November 30	Second term courses — for third and fourth year students only (not applicable to students in attendance in the first term).

### Application for Summer Studies

February 28	Courses beginning in May (first admission).
March 31	Courses beginning in May (reregistration).
April 30	Courses beginning in July (not applicable to students taking courses beginning in May).

### Application for Graduation

July 1	Fall Graduation.
December 1	Spring Graduation.

N.B. Each of the above dates is a fixed due date. If a fixed date falls on a  
holiday, Saturday or Sunday, the nearest following day of business  
will be considered as the deadline.

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## NOTICE CONCERNING FEES

*It is expected that it may be necessary to increase fees above the levels shown in this Calendar. Notification of any required changes in the current fee schedules will be given as far in advance as possible by means of a supplement to this Calendar.*

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### Other University Publications of Interest to Prospective Students

#### *Admissions Handbook*

Provides information on the University, programs and courses offered  
and procedures to follow in seeking admission. Available from the Direc-  
tor of Admission Services.

#### *Compendium*

A bulletin announcing changes in admission regulations or procedures,  
new programs and items of general interest. Sent to all B.C. high schools  
and colleges bimonthly.

#### *Transfer Guide: College-University*

Lists college courses and their University of Victoria equivalents. Avail-  
able from the Director of Admission Services.

#### *Summer Studies Calendar Supplement*

Lists offerings available in the period May through August. Available  
from the Director, University Extension & Community Relations.

#### *University Extension Supplement*

Lists credit offerings available in the late afternoon and evening. Avail-  
able from the Director, University Extension & Community Relations.

#### *University Extension Calendar*

Lists nondegree programs; issued in the fall and spring. Available from  
the Director, University Extension & Community Relations.

UNIVERSITY OF VICTORIA

*Calendar*  
*1988-89*

*Twenty-fifth*  
*Anniversary Edition*

The University of Victoria operates under the authority of the *University Act* (R.S.B.C. 1979 c. 419) which provides for a Convocation, Board of Governors, Senate and Faculties. The *University Act* describes the powers and responsibilities of those bodies, as well as the duties of the officers of the University. Copies of this Act are held in the University Library. Persons who wish to purchase copies may do so through the Printer to the Queen's Most Excellent Majesty, The Parliament Buildings, Victoria, British Columbia, Canada.

The official academic year begins on July 1. Changes in Calendar regulations normally take effect with the beginning of the Winter Session each year. Nevertheless the University reserves the right to revise or cancel at any time any rule or regulation published in this Calendar or its supplements.

The Calendar is published annually in the Spring by the Registrar under authority granted by the Senate of the University.

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# SESSIONAL CALENDAR 1988

JANUARY						
S	M	T	W	T	F	S
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
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31						

FEBRUARY						
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28	29					

MARCH						
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APRIL						
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JULY						
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AUGUST						
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SEPTEMBER						
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OCTOBER						
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30	31					

NOVEMBER						
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DECEMBER						
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## WINTER SESSION — FIRST TERM

### September 1988

- 5 Monday Labor Day.\*
- 6 Tuesday Registration in all faculties. Details of procedures are mailed to all students receiving authorization to register or reregister in September 1988. No registration in the Professional Years in Education will be accepted after this date.  
Beginning of all Professional Years in Education.  
Only one day for registration in Faculty of Law.  
First term classes begin, First Year, Faculty of Law.
- 7 Wednesday Last day of registration (except as above).  
First term classes begin, Second and Third Years, Faculty of Law.
- 8 Thursday First term classes begin (except as above).
- 9 Friday First day of period for dropping and adding courses which begin in first term in Faculties other than Law.
- 14 Wednesday Senate meets. Last day for course changes in Faculty of Law.  
Last day of 5 day period for late registration with permission (other than Law and Professional Years in Education).
- 19 Monday Board of Governors meets.
- 21 Wednesday Last day for full refund of tuition fees (see page 20, paragraph 8). Last day of period for adding courses which begin in the first term. All change forms must be deposited by 4:00 p.m. on this date, at Records Services.
- 30 Friday Last day for paying first term fees without penalty.

### October 1988

- 5 Wednesday Senate meets
- 10 Monday Thanksgiving Day.\*

- 12 Wednesday Last day for 50% refund of tuition fees (see page 20, paragraph 8).
- 17 Monday Board of Governors meets.
- 26 Wednesday Awards Recognition Ceremony.
- 31 Monday Last day for withdrawing from first term courses without penalty of failure. All forms must be deposited by 4:00 p.m. on this date, at Records Services. *Failure to pay full fees (due on September 30) will result in automatic cancellation of registration.*

### November 1988

- 2 Wednesday Senate meets.
- 9 Wednesday Reading Break (except Law).\*
- 10 Thursday Reading Break (except Law).\*
- 11 Friday Remembrance Day.\*
- 21 Monday Board of Governors meets.
- 26 Saturday Fall Convocation.

### December 1988

- 5 Monday Last day of classes in first term (except for Faculty of Human and Social Development, Faculty of Law, and Professional Years in Faculty of Education, to be announced).
- 7 Wednesday Senate meets.
- 8 Thursday First term examinations begin (except for Faculty of Human and Social Development, Faculty of Law, and Professional Years in Faculty of Education, to be announced).
- 19 Monday Board of Governors meets.
- 21 Wednesday First term examinations end. End of first term, all faculties.
- 25 Sunday Christmas Day.\*
- 26 Monday Holiday.\*
- 27 Tuesday Holiday.\*

# SESSIONAL CALENDAR

## 1989

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
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JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
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### WINTER SESSION — SECOND TERM

#### January 1989

- 2 Monday Holiday.\*  
9 Monday Second term classes begin in all faculties.  
Registration in person for third and fourth year students receiving authorization to register in courses beginning in the second term. Registration in person for all new graduate students. (Not applicable to students in attendance in the first term.)  
11 Wednesday Senate meets.  
16 Monday Last day for course changes in Faculty of Law.  
Board of Governors meets.  
20 Friday Last day for full refund of second term fees (see page 20, paragraph 8). Last day for adding courses which begin on January 9. All change forms must be deposited by 4:00 p.m. on this date, at Records Services.  
31 Tuesday Last day for paying second term fees without penalty.

#### February 1989

- 1 Wednesday Senate meets.  
10 Friday Last day for 50% refund of tuition fees (see page 20, paragraph 8).  
20 Monday Board of Governors meets.  
22 Wednesday Reading Break.\*  
23 Thursday Reading Break.\*  
24 Friday Reading Break.\*  
28 Tuesday Last day for withdrawing from full year and second term courses without penalty of failure. All forms must be deposited by 4:00 p.m., on this date, at Records Services. *Failure to pay full fees (due on January 31) will result in automatic cancellation of registration.*

#### March 1989

- 1 Wednesday Senate meets.  
20 Monday Board of Governors meets.  
24 Friday Good Friday.\*  
27 Monday Easter Monday.\*

#### April 1989

- 5 Wednesday Senate meets.  
7 Friday Last day of classes in the second term (except for Faculty of Human and Social Development, Faculty of Law, and Professional Years in Faculty of Education, to be announced).  
10 Monday Examinations begin (except for Faculty of Human and Social Development, Faculty of Law, and Professional Years in Faculty of Education, to be announced).  
17 Monday Board of Governors meets.  
26 Wednesday End of examinations for all faculties except Law. End of Winter Session (except for Faculty of Law and Profes-

- 28 Friday

sional Years in Faculty of Education, see below).  
End of examinations for Faculty of Law.

### MAY-AUGUST 1989 (see Summer Studies supplement for complete dates)

#### May 1989

- 1 Monday Earliest date on which Summer Studies courses begin.  
May-August courses begin.  
3 Wednesday Senate meets.  
8 Monday May and May-June first term courses begin.  
12 Friday Last day of final practicum of Professional Years (regular programs) in Faculty of Education.  
15 Monday Board of Governors meets.  
17 Wednesday Special Senate meeting (tentative).  
22 Monday Victoria Day.\*  
31 Wednesday May courses end.

#### June 1989

- 1 Thursday June courses begin.  
Senate meets (date to be announced).  
2 Friday Spring Convocation.  
3 Saturday Spring Convocation.  
19 Monday Board of Governors meets.  
23 Friday May-June and June courses end.  
29 Thursday Reading Break.\*  
30 Friday Reading Break. Holiday.\*

#### July 1989

- 1 Saturday Canada Day.\*  
3 Monday July and July-August courses begin.  
25 Tuesday July courses end.  
26 Wednesday August courses being.  
Supplemental examinations for Winter Session 1988-89 begin.  
28 Friday Supplemental examinations for Winter Session 1988-1989 end.  
May-August classes end.

#### August 1989

- 1 Tuesday May-August examinations begin.  
7 Monday British Columbia Day.\*  
10 Thursday May-August examinations end.  
18 Friday July-August and August courses end. End of Summer Studies.

\* Classes are cancelled on all holidays and during reading breaks. Administrative offices and academic departments are closed on holidays. The McPherson Library is closed on all holidays except Good Friday and Easter Monday.

# GENERAL INFORMATION

## HISTORICAL OUTLINE

The University of Victoria came into being on July 1, 1963, but it had enjoyed a prior tradition as Victoria College of sixty years distinguished teaching at the university level. This sixty years of history may be viewed conveniently in three distinct stages.

Between the years 1903 and 1915, Victoria College was affiliated with McGill University, offering first and second year McGill courses in Arts and Science. Administered locally by the Victoria School Board, the College was an adjunct to Victoria High School and shared its facilities. Both institutions were under the direction of a single Principal: E.B. Paul, 1903-1908; and S.J. Willis, 1908-1915. The opening in 1915 of the University of British Columbia, established by Act of Legislature in 1908, obliged the College to suspend operations in higher education in Victoria.

In 1920, as a result of local demands, Victoria College began the second stage of its development, reborn in affiliation with the University of British Columbia. Though still administered by the Victoria School Board, the College was now completely separated from Victoria High School, moving in 1921 into the magnificent Dunsmuir mansion known as Craigdarroch. Here, under Principals E.B. Paul and P.H. Elliott, Victoria College built a reputation over the next two decades for thorough and scholarly instruction in first and second year Arts and Science.

The final stage, between the years 1945 and 1963, saw the transition from two year college to university, under Principals J.M. Ewing and W.H. Hickman. During this period, the College was governed by the Victoria College Council, representative of the parent University of British Columbia, the Greater Victoria School Board, and the provincial Department of Education. Physical changes were many. In 1946 the College was forced by postwar enrollment to move from Craigdarroch to the Lansdowne campus of the Provincial Normal School. The Normal School, itself an institution with a long and honourable history, joined Victoria College in 1956 as its Faculty of Education. Late in this transitional period (through the cooperation of the Department of National Defence and the Hudson's Bay Company) the 284 (now 381) acre campus at Gordon Head was acquired. Academic expansion was rapid after 1956, until in 1961 the College, still in affiliation with U.B.C. awarded its first bachelor's degrees.

In granting autonomy to the University of Victoria, the *Universities Act* of 1963 vested administrative authority in a Chancellor elected by the Convocation of the University, a Board of Governors, and a President appointed by the Board; academic authority was given to a Senate which was representative both of the Faculties and of the Convocation.

The historical traditions of the University are reflected in the Arms of the University, its academic regalia and its house flag. The B.A. hood is of solid red, a colour that recalls the early affiliation with McGill. The B.Sc. hood, of gold, and the B.Ed. hood, of blue, show the colours of the University of British Columbia. Blue and gold have been retained as the official colours of the University of Victoria. The motto at the top of the Arms of the University, in Hebrew characters, is 'Let there be Light'; the motto at the bottom, in Latin, is 'A Multitude of the Wise is the Health of the World.'

## UNIVERSITY REGALIA

### Visitor

*Gown* royal blue wool broadcloth, trimmed with gold silk taffeta.

*Headdress* black velvet mortarboard, trimmed with gold braid.

### Chancellor

*Gown* purple corded silk, trimmed with purple velvet and gold braid.

*Headdress* black velvet mortarboard, trimmed with gold braid.

### President

*Gown* royal blue corded silk, trimmed with blue velvet and gold braid.

*Headdress* black velvet mortarboard, trimmed with gold braid.

### Board of Governors

*Gown* Cambridge (Doctor of Music) pattern, grey material,

with gold and blue ribbon trim.

*Headdress* black cloth mortarboard, with black silk tassel.

### Honorary Doctorate of Laws (Hon. LL.D.)

*Gown* Cambridge (Doctor of Music) pattern, scarlet wool broadcloth, trimmed with blue-purple silk taffeta.

*Hood* Aberdeen pattern, outside shell of scarlet wool broadcloth, lined with blue-purple silk taffeta.

*Headdress* Tudor style in black velvet with red cord trim.

### Honorary Doctorate

*Gown* Cambridge (Doctor of Music) pattern, scarlet wool, front facings and sleeve lining of black silk taffeta.

*Hood* Aberdeen pattern, outside shell of black wool, lined with silk taffeta in a solid colour with a one inch band of black velvet on the outside edge.

Hon.D. Litt. — white Hon.D.Eng. — orange

Hon.D.Ed. — blue Hon.D.F.A. — green

Hon.D.Sc. — gold Hon.D.Mus. — pink

*Headdress* Tudor style in black velvet with red cord trim.

### Bachelors

*Gown* traditional (Canadian) Bachelor's style, in black.

*Hood* Aberdeen pattern (B.A., B.Sc., and B.Ed., without neckband and finished with two cord rosettes; B.F.A., B.Mus., B.S.N., B.S.W., LL.B., with mitred neckpiece), outside shell of silk taffeta in a solid colour, lined with identical material. Faculty colours are as follows:

B.A. — scarlet B.Mus. — pink

B.Sc. — gold B.S.N. — apricot

B.Ed. — blue B.S.W. — citron

B.Eng. — orange LL.B. — blue-purple

B.F.A. — green

*Headdress* standard black cloth mortarboard with black silk tassel.

### Masters

*Gown* traditional (Canadian) Master's style in black.

*Hood* similar in design and colour to the respective Bachelor's hoods, but with mitred neckpiece and a narrow band of black velvet one inch from edge of hood on the outside only. Others are:

M.A.Sc. — orange M.P.A. — russet

*Headdress* standard black cloth mortarboard with black silk tassel.

### Doctors

*Gown* Cambridge style, black silk, front facings and sleeve linings of scarlet silk.

*Hood* Oxford Doctor's Burgon shape, shell of scarlet silk, lined with blue silk, border of gold silk.

*Headdress* black velvet mortarboard with red tassel fastened on left side.

NOTE: On ceremonial occasions, participants without degrees wear the standard black undergraduate cap and gown as described above for bachelors.

## GLOSSARY OF UNIVERSITY TERMS

New students will find the following definitions helpful in becoming familiar with terms used in this Calendar.

*Aegrotat* — Literally, "he is ill"; transcript notation accompanying a letter grade assigned where illness or similar affliction affected the student's performance.

*Auditor* — A student who pays a fee to sit in on a course without the right to participate in any way. Auditors are not entitled to credit. (See page 13.)

*Award* — See list of definitions under Scholarships and Awards.

*Chairman* — In the Academic Regulations in the section under General Information, this means the Chairman of a Department, the Di-

rector of a School, Centre or Program, and in the case of Law students, the Dean of the Faculty.

*Convocation* — Academic assembly; body composed primarily of graduates of the University.

*Corequisite* — A specific course or requirement which must be undertaken at the same time as a prescribed course.

*Course* — A particular part of a subject studied, such as English 121.

*Credit Unit* — Positive numerical value used in assigning the value of a course, such as Economics 100 (3 units).

*Department* — In academic regulations, this covers any academic administrative unit, including a department, school, centre, program or Faculty as the context requires.

*Discipline* — A subject of study within a department.

*Full Time Student* — An undergraduate student undertaking 12 or more units of study in the Winter Session.\*

*Grade Point* — Positive numerical value given to an alphabetical letter grade used in assessment of academic performance.

*Graduate Student* — A student who has received a Bachelor's degree or equivalent and who is enrolled in a program leading to a Master's or Doctoral degree.

*Lower Level Courses* — Courses numbered from 100 to 299.

*Major* — The subject or area of specialization or emphasis in a degree program.

*Part Time Student* — An undergraduate student undertaking fewer than 12 units of study in the Winter Session.\*

*Plagiarism* — A form of cheating by means of the unacknowledged, literal reproduction of ideas and material of other persons in the guise of new and original work. See Statement on Cheating, page 15.

*Prerequisite* — A preliminary requirement which must be met before registration in a prescribed course.

*Probation* — A period of trial for a student whose registration is subject to academic conditions.

*Program* — The courses of study organized to fulfill an academic objective, such as a B.Sc. program.

*Registration* — The process of formally enrolling in courses.

*Regular Student* — A student who is registered as a candidate for a University of Victoria degree, or in credit courses leading to a University of Victoria Diploma.

*Section* — The division of a course, e.g. Section Y01 of French 100.

*Session* — Designated period of time during which courses of study are offered, i.e., Winter Session, Summer Session.

*Special Student* — A student who is admitted to credit courses but who is not a candidate for a University of Victoria degree or diploma.

*Student* — A person who is enrolled in at least one credit course at this University.

*Term* — A period of time in the academic year: a term in the Winter Session consists of 13 weeks, in the Summer Session, approximately 3 weeks (F = First Term; S = Second Term).

*Transcript* — A copy of a student's permanent academic record.

*Transfer Credit* — Credit for courses at the postsecondary level.

*Undergraduate Student* — A student registered in an undergraduate faculty or in a program leading to a Bachelor's degree or an undergraduate diploma.

*Unclassified* — Refers to the year in which certain students are registered.

*Upper Level Courses* — Courses numbered from 300 to 499.

*Year* — A minimum of 15 units of courses; the level within a program of study or the level of a course, e.g., First Year student, First Year course (Physics 110).

\* See Faculty of Graduate Studies for graduate students.

## CALENDAR CHANGES

The official academic year begins on July 1. Changes in Calendar regulations normally take effect with the beginning of the Winter Session in September each year. Nevertheless the University reserves the right to revise or cancel at any time any rule or regulation published in the Calendar or its supplements.

## ACADEMIC SESSIONS

The Winter Session is divided into two terms — the first, September to December; the second, January to April. The period May through August is administered under Summer Studies. The Calendar Supplement for Summer Studies is published separately. A list of credit courses offered in the late afternoon and evening is also published separately. (See inside front cover.)

## PROGRAMS OFFERED

The University offers the following degrees through the Faculty of Arts and Science, the Faculty of Education, the Faculty of Engineering, the Faculty of Fine Arts, the Faculty of Graduate Studies, the Faculty of Human and Social Development, the Faculty of Law: Bachelor of Arts; Bachelor of Education (Elementary Curriculum) and Bachelor of Education (Secondary Curriculum); Bachelor of Engineering; Bachelor of Fine Arts; Bachelor of Laws; Bachelor of Music; Bachelor of Science; Bachelor of Science in Nursing; Bachelor of Social Work; Master of Arts; Master of Applied Science; Master of Education; Master of Engineering; Master of Fine Arts; Master of Music; Master of Public Administration; Master of Science; Doctor of Philosophy. Also offered are degree programs in Education for graduates seeking teacher certification, a Diploma Program in Public Sector Management for persons in interior centres in the Province, and Diploma Programs in Applied Linguistics, Cultural Conservation, Fine Arts, Humanities, and School Librarianship; all of which are credit programs. A program leading to a Certificate in Kódyá Methodology is offered by the Faculty of Education.

## Cooperative Education Program:

The University offers students in certain programs the opportunity to undertake studies involving work in industry, government or some professions. See page 28.

## ACADEMIC ADVICE

In choosing undergraduate degree programs, students are strongly urged to consult the Calendar prescriptions for the degree program desired. Advice may be obtained from the advising centres and departments of the faculties.

Students who register in the Faculty of Arts and Science or the Faculty of Fine Arts and who intend to undertake studies at a later date in the Faculty of Education should plan their programs with this in mind. Advice may be obtained from the Advising Centre of the Faculty of Education. Similarly, academic advice about the professional programs in the Faculty of Human and Social Development is available from faculty members of the appropriate school, on an appointment basis.

## PREPROFESSIONAL STUDIES

Students who intend to complete a year or two of studies and then transfer to another university are urged to design their program so that they will meet the requirements of the other institution they plan to attend. In this connection, by proper selection of First Year courses in Arts and Science, students may equip themselves to enter the first year of Forestry, and the second year of Agriculture, Physical Education, Pharmacy, at certain other universities. Courses preparatory to Medicine, Dentistry, Architecture, etc., may be taken at the University for studies elsewhere. See page 27, Preprofessional Education. Advice may be obtained from the Advising Centre of the Faculty of Arts and Science.

## CAREER INFORMATION AND VOCATIONAL COUNSELLING

The University recognizes the importance of career planning and decision making, and all students are urged to investigate and explore career opportunities early in their University stay, especially those relating to their academic studies. The Counselling Services, the Canada Employment Centre on Campus, and the Alumni Association are available to students with career questions and concerns. A detailed description of these services appears on pages 21, 24 and 26.

## ENTRANCE AWARDS AND FINANCIAL AID

The University offers a number of scholarships to students entering from senior secondary schools in British Columbia. Complete details about these awards and other entrance awards offered by agencies outside the University are found at the back of the Calendar. Application forms may be obtained from the office of the Administrative Registrar.

Financial aid schemes open to all students attending the University are described under Financial Aid at the back of the Calendar. Information in regard to financial aid may be obtained from the Student Financial Aid Office, whose personnel will be pleased to give whatever advice and assistance they can.

## HANDICAPPED STUDENTS

The University aims to provide adequate services and facilities for its handicapped students. While the number of such students who have attended has been relatively small, students with a wide range of disabilities have successfully completed programs at the University. Victoria usually has little snow or ice in the wintertime, the residences can accommodate students using wheelchairs, the buildings on campus are largely accessible, and there is a continuing effort to improve accessibility to the facilities of the University.

Services to handicapped students are provided by a number of students, staff and faculty. These services are outlined in a pamphlet available from Admission Services. Although some services and facilities may be limited, every effort will be made to assist individual students.

Handicapped students who have questions or who feel they may need special assistance should contact Counselling Services.

## LIMITATION OF ENROLLMENT

The University reserves the right to limit enrollment, and to limit the registration in, or to cancel or revise, any of the courses listed. The curricula may also be changed, as deemed advisable by the Senate of the University.

Except in special circumstances, no student under the age of sixteen may be admitted to the First Year, or under the age of seventeen to the Second Year.

## LIMIT OF RESPONSIBILITY

The University of Victoria accepts no responsibility for the interruption or continuance of any class or course of instruction as a result of an act of God, fire, riot, strike, or any cause beyond the control of the University of Victoria.

## CATEGORIES OF STUDENTS

Each student who has been authorized to register in a faculty other

than Graduate Studies is designated as one of the following:

1. Regular student — A student admitted to credit courses as a candidate for a degree or diploma.
2. Special student — A student admitted to credit courses but not a candidate for a degree or diploma.

For categories of graduate students, see Faculty of Graduate Studies.

## CLASSIFICATION OF UNDERGRADUATES BY YEAR

Classification of Regular Students by Year is normally based on the number of units completed, as follows:

Below 12 units	First Year
12 to 26½ units	Second Year
27 to 41½ units	Third Year
42 units or above	Fourth Year (4 year programs)
42 to 56½ units	Fourth Year (B.Ed only)
57 units or above	Fifth Year (B.Ed only)

Special Students are unclassified as to Year.

## COURSE VALUES AND HOURS

Each course which is offered for credit has a unit value. A full course normally has a value of 3 units. In the course outline given in each of the faculties, the number of units assigned to each course is given in brackets immediately following the course number. Thus ANTH 305(1½) indicates that Anthropology 305 has a value of 1½ units.

The hours assigned for lectures or seminars, laboratory or practical sessions and tutorials in a course are indicated in the following examples:

- (3-0) — 3 hours lecture/seminar per week.  
 (2-1) — 2 hours lecture/seminar and 1 hour laboratory or practical session per week  
 (3-0-1) — 3 hours lecture/seminar and 1 hour tutorial per week

Codes found in course listings show the duration of courses:

F = September-December
S = January-April
Y = September-April
K = May-August 1989*

\*See Summer Studies calendar for codes applicable to shorter courses offered in the period May through August.

## LECTURE AND LABORATORY SCHEDULE

The schedule of classes for the Winter Session is published in early July.

## ADMISSION

Each student is required as part of his first application to furnish the information necessary for the University record, and to sign the following declaration:

*I hereby accept and submit myself to the statutes, rules and regulations, and ordinances of the University of Victoria, and of the Faculty in which I am registered, and to any amendments thereto which may be made while I am a student of the University, and I promise to observe the same.*

See page 13 for Medical Requirement.

Inquiries relating to admission to the Faculty of Graduate Studies should be addressed to the Dean of Graduate Studies.

Inquiries relating to admission to the Faculty of Law should be addressed to the Dean of Law.

All inquiries relating to admission to faculties other than Graduate Studies and Law should be addressed to the Director of Admission Services. Details follow:

### APPLICATION FOR ADMISSION Undergraduate Faculties (except Law)

1. Persons seeking admission for the first time must obtain an Application for Admission from the Director of Admission Services. This form must be returned, fully completed, to the Director of Admission Services by the date specified for the faculty or program applied for (see inside front cover of this Calendar).

2. Students are reminded that all questions on the application form must be answered. In particular, students applying for financial aid must be able to give their Social Insurance number. For example, Government requires that applicants for Canada Student Loans have a Social Insurance number. Application for a number may be made through the Canada Employment and Immigration Commission.
3. Persons applying for admission to Summer Studies 1988 who plan to attend the Winter Session 1988-89 must submit an Application for Reregistration to Records Services (see page 11), and may apply for Winter Session up to the end of the first week of classes in Summer Studies, instead of 15 July.
4. Each applicant applying for the first time must arrange for two (2) official transcripts of secondary school records and of any higher studies taken to be sent directly by the issuing institution to Admission Services. Every applicant is required to state the names of all education institutions of secondary or higher level attended and to submit evidence of the standing obtained at each. In addition, teachers whose professional training was not completed within 10 years prior to their application to the Faculty of Education must submit the following for consideration by the Faculty Admissions and Adjudication Committee:
  - (a) resume of all teaching experience including dates, locations and grade levels, and indicating whether full time, part time, or substitution; and
  - (b) copies of the most recent Superintendent's and/or Principal's Reports, and

- (c) letter(s) from Principal(s) attesting to teaching effectiveness in substitution roles, if applicable, and
- (d) copy of Teacher's Card as issued by the Ministry of Education.
5. An evaluation payment of \$35 must accompany the application for admission for every applicant whose records originate, in whole or in part, outside the Province of British Columbia. This fee is not required of visiting students. It is not refundable, nor can it be applied to tuition.
  6. Candidates presenting transcripts from academic institutions outside North America may be required to supply a catalogue or syllabus showing the description of courses studied and the duration of those courses.
  7. Transcripts in languages other than English or French must be submitted together with official, notarized translations into English or French.
  8. The University reserves the right to limit enrollment. In addition, although applicants may be admissible to the University, it may not be possible to grant them entry to the specific program they would wish to follow.
  9. Applicants should consult the program prerequisites in the chart on page 9, since, in certain cases, the applicant must demonstrate special aptitudes beyond the normal academic requirements, e.g., in Music, Physical Education, etc.
  10. All applicants will be informed in writing of their acceptance or rejection as soon as their application can be processed by Admission Services. Applicants should wait for written confirmation before setting out for the University. This is particularly applicable to applicants who live at some considerable distance from Victoria.
  11. An applicant who does not meet the published requirements for admission to the University owing to exceptional circumstances may apply for a waiver of the specific admission regulation to the Senate Committee on Admission and Reregistration, c/o the Director of Admission Services. Such a request should be accompanied by the required application form and documents mentioned above and any letters of support from persons who are familiar with the applicant's abilities and circumstances.
  12. Any applicant, including those mentioned in paragraph 11, above, whose application for admission is rejected and who is able to provide information that was not presented initially may request in writing to the Senate Committee on Admission and Reregistration, c/o of the Director of Admission Services, that the application be reconsidered. Such a request should include the additional information together with any supporting documents from persons familiar with the applicant's abilities and circumstances.

The Senate Committee on Admission and Reregistration will consider all the documentation presented and will make a final decision regarding the application, subject to review by the Senate Committee on Appeals on the grounds of specific procedural error (see Avenues of Appeal and Redress, page 13).

## ADMISSION REQUIREMENTS

The following regulations notwithstanding, the University reserves the right to reject applicants for admission on the basis of their overall academic records, even if they technically meet entrance requirements:

### 1. Applicants from British Columbia and Yukon Secondary Schools:

The qualifications below are approved by the Senate of the University. Inquiries relating to Secondary School Graduation should be addressed to the Ministry of Education, Victoria, B.C., or to the Superintendent of the applicant's school district.

#### (a) Graduates of British Columbia and Yukon Secondary Schools:

The requirement for admission to the University in 1988-89 is graduation from senior secondary school, as prescribed by the Ministry of Education of the Province of British Columbia, including:

- (i) Successful completion of Algebra 11, English 11, Social Studies 11, a Science 11 and a Language 11 (a Beginners' Language 11 will *not* be accepted in place of a Language 11 course), and
- (ii) a minimum overall C+ average calculated on English 12 and three additional academic 12 level subjects selected from the Curriculum Reference Chart as approved by the Ministry of Education. Acceptable subjects are Algebra 12, Biology 12, Chemistry 12, Computer Science 12, French 12, Geography 12, Geology 12, Geometry 12, German 12, History 12, Latin 12, Literature 12, Physics 12, Probability and Statistics 12, Spanish 12, Western Civilization 12.

One alternative Grade 12 course may be considered in individual cases at the discretion of the Senate Committee on Admission and Reregistration, c/o Director, Admission Services.

These requirements have been approved by the Senate of the University and apply to all applicants except those applying for a program in the Faculty of Fine Arts which has alternative requirements authorized by the Senate.

### • Faculty of Fine Arts

Successful completion of English 11, Social Studies 11, and THREE of the following: an approved fine arts 11 course, a language 11 course, a science 11 course, Algebra 11; applicants may include in their grade 12 courses an approved fine arts 12 course in place of one of the academic 12 courses.

For students graduating from secondary schools in 1984 and thereafter, Grade 12 Provincial Examinations must be written in each subject presented for admission if the examination was available in the year in which the subject was taken.

Acceptable Language 11 subjects, selected from the Curriculum Reference Chart as approved by the Ministry of Education, are French 11, German 11, Latin 11, Spanish 11.

Applicants who wish to substitute a Locally Developed (LD) language subject for the Language 11 requirement must arrange through the Principal to have an outline submitted for evaluation by the University of Victoria.

Applicants whose first language is not English may apply for an exemption from the Language 11 requirement. Such applicants will be required to demonstrate written and verbal fluency in their native language.

Normally, applicants must have fulfilled the above requirements by June of the year in which admission is being sought.

Additional requirements for admission to specific programs offered by the faculties of the University are shown in the chart on the next page.

Applicants whose overall average is between C and C+ will be considered for admission by the Senate Committee on Admission and Reregistration which will make a general assessment, based primarily upon performance in academic subjects, of their capacity for success at the University.

Applicants may not receive University credit for senior secondary school courses. However, applicants with high standing may be granted advanced placement. Such applicants are invited to consult with the departments concerned prior to registration in courses.

Applicants who meet the requirement in the first paragraph, above, and who have, while enrolled in a Senior Secondary School, successfully completed courses that are given by a British Columbia college and accepted for transfer credit by the University, may be granted transfer credit for such courses, subject to the regulations in Section 3(b), on page 10. Attention is drawn, in particular, to the second paragraph of that section.

The above regulations apply to graduates of public and other schools in British Columbia which offer the Grade 12 program.

#### (b) Special Admission of Distinguished Students still Registered in Senior Secondary Schools in British Columbia:

- (i) Distinguished senior secondary school students may apply for conditional admission to the University prior to graduation from their secondary school provided that the following criteria are met:
  - (a) The student must be recommended by the Principal of his school.
  - (b) The student must be maintaining a B average in all subjects and an A average in the discipline to be undertaken at the University. If the student elects a discipline not taught in the school attended, the Principal of the school must make a special recommendation, in writing, stating the student's particular aptitudes.
  - (c) The University department concerned must support the student's application.
  - (d) The student must be completing a total of at least 12 courses in Grades XI and XII leading to graduation and should normally be taking as many courses as are required for access to scholarships offered by the Government of the Province.
- (ii) Students interested in undertaking courses and who have satisfied the criteria in (i), a. to d. above should apply to the Director of Admission Services by July 15 for full year courses or half year courses in either term, in the Winter Session.
- (iii) The University will accept applicants who have met the above criteria and will register them as "special students" in no more than 6 units of work in any given academic session.
- (iv) Credit towards a degree will be granted by the University for courses successfully completed when the student is authorized to register in a degree program.

### DEGREE PROGRAM PREREQUISITES †

For the convenience of applicants who have graduated from British Columbia senior secondary schools, the secondary school course requirements specified for programs offered with the faculties and departments or schools of the University are assembled in this chart.

**R – Required      O – Optional but Recommended**

DEGREE PROGRAMS (by Faculty and Department or School)	Gen. Adm. Req only*	Algebra		Biology		Chemistry		Comp St.	CSC	Geog	Geom	Hist	Lit	Physics		Prob & Stats	Science
		12	11 12	11 12	11 12	11	12	12	12	12	12	11 12	12	12	12	12	
<b>ARTS AND SCIENCE</b> (see Notes 2 and 6)																	
Anthropology		O	O					O									
Astronomy (see Notes 1 & 2)		R												O	O		
Biochemistry & Microbiology (see Note 1)		R	O	O	R	O								R	O	O	
Biology (see Notes 1 & 2)		R	O	O	R	O								R	O		
Chemistry (see Notes 1 & 2)		R			R	O								R	O		
Classics (incl. Greek & Latin) (see Note 2)	G																
Computer Science (see Notes 2 & 3)		R						O	O								
Economics (see Note 1)		R															
English (see Note 2)													O				
French Language & Literature (see Note 2)	G																
Geography (see Note 2)		O									O						
Germanic Studies (see Note 2)	G																
Hispanic & Italian Studies (see Note 2)	G																
History (see Note 2)												O	O				
Linguistics (B.A.) (see Note 2)		O						O	O								
Linguistics (B.Sc.) (see Note 2)		R	O					O	O					O			
Mathematics (see Note 2)		R															
Pacific & Asian Studies (see Note 2)	G																
Philosophy (see Note 2)	G																
Physics (see Notes 1 & 2)		R			O	O								R	O		
Political Science		O										O	O			O	
Psychology (see Note 4)		O									O					O	O
Slavonic Studies (see Note 2)	G																
Sociology		O						O			O					O	O
<b>EDUCATION</b> (see Note 5)																	
Education (Elem)				O						O			O	O			
Education (Sec)																	
Physical Education				O		O							O	O			
Human Performance Arts				O		O							O	O			
Human Performance (see Note 2) Science		R	O	O	R	O							O	O			
Leisure Studies (see Note 2)				O		O							O	O			
<b>ENGINEERING</b> (see Notes 2 & 7)																	
Electrical & Computer Engineering		R			R	O									R	R	
Mechanical Engineering		R			R	O									R	R	
<b>FINE ARTS</b> (see Notes 2 & 6)																	
Creative Writing (see Notes 2 & 10)	G																
History in Art (see Note 2)	G																
Music (see Note 8)	G																
Theatre (see Note 9)	G																
Visual Arts	G																
<b>HUMAN &amp; SOCIAL DEVELOPMENT</b>																	
Child Care (see Note 11)																	
Health Information Science (see Notes 2 & 14)			R	O	O			O	O							O	
Nursing (see Note 12) 2 year program																	
Social Work (see Note 13)																	

† In addition to the general admission requirements.

\* Science – Biology, Chemistry, Computer Studies II (except B.Ed. Elem.), Earth Science, Geology, Physics.

Note 1: Exceptions may be made by the Department. Although special courses or sections of first year Chemistry and Physics 102 are available if prerequisites are lacking, students planning to specialize in Astronomy, Biochemistry, Biology, Chemistry, Microbiology or Physics are strongly urged to complete Algebra 12, both Chemistry 11 and 12, at least Physics 11 and preferably Physics 12.

Note 2: Cooperative Education Programs in Biology, Chemistry, Computer Science, Creative Writing, Electrical & Computer Engineering and Mechanical Engineering, Geography, Health Information Science, Human Performance (B.Sc.), Leisure Studies, Math (incl. Statistics) and Physics (incl. Astronomy) and the Arts Cooperative Programs in: Classics, English, French Language & Literature, Germanic Studies, Hispanic & Italian Studies, History, Linguistics, Pacific & Asian Studies, Philosophy, Slavonic Studies, and History in Art are available and information may be obtained by contacting the Department concerned.

Note 3: Applicants with credit for Computer Studies II and Computer Science 12 should consult the Department of Computer Science before registering in Computer Science 110.

Note 4: Recommended — Algebra 12 or Geometry 12 or Probability and Statistics 12.

Note 5: Students planning a program in the Faculty of Education take their first year in the Faculty of Arts and Science or in the Faculty of Fine Arts. They are referred to the Education

Advising Centre when considering their selection of courses. In the second year students transfer to the Faculty of Education.

Note 6: Uvic now offers an Arts Coop Program in many areas. Contact the Arts Coop Coordinator for details: 721-8841.

Note 7: Must normally obtain grade of B or better in Algebra 12, and Physics 12.

Note 8: Music requires an audition and interview for admission to its programs of study. Contact: Administrative Officer, School of Music.

Note 9: Interview and/or audition required.

Note 10: Advanced Standing (Second Year and above) — portfolio required. Contact Chairman of department.

Note 11: Requires 12 units of College or University study, or equivalent, including appropriate courses as outlined in the calendar.

Note 12: RN Certification required prior to application.

Note 13: Requires two years of College or University Study, including appropriate courses as outlined in the calendar.

Note 14: Requires one year of College or University study, including appropriate courses as outlined in the calendar.

**(c) Admission from British Columbia Grade XIII:**

Applicants who have graduated from senior secondary schools in British Columbia and who have undertaken studies in the curriculum of the former Grade XIII of British Columbia will be considered on an individual basis. Those with good records will be admissible; those with marginal records will be considered by the Senate committee on Admission and Reregistration, which will judge each case separately.

**2. Graduates of Secondary Schools Outside British Columbia and the Yukon:****(a) Graduates of Canadian Secondary Schools:**

In addition to meeting the requirements shown in the chart on the previous page and the specific requirements below, applicants' academic records are normally required to meet, in standing and in subject matter, the requirements for admission to both this University and a recognized university in their own Province (the University of Alberta for residents of the Northwest Territories).

The following specific requirements apply:

Alberta, Saskatchewan, Manitoba, New Brunswick, Prince Edward Island, Nova Scotia, Newfoundland, the Northwest Territories: Grade 12 graduation including:

- (a) Successful completion of the equivalent of Algebra 11 (academic), English 11, Social Science 11 (such as History, Geography, etc.), a Science 11 and Language 11.
- (b) A minimum overall average equivalent to the British Columbia C+ or the equivalent of English 12 and three additional Grade 12 level academic subjects.

Ontario: either Grade 13 graduation with a minimum 65% overall average or students with exceptional ability may be considered after completion of Grade 12 including:

- (a) Successful completion of the equivalent of Algebra 11 (academic), English 11, Social Science 11 (such as History, Geography, etc.) a Science 11 and Language 11.
- (b) A minimum 75% overall average on the equivalent of English 12 and three academic Grade 12 level subjects.

Transfer credit will not be awarded for Grade 13 courses. Please consult Admission Services for further information.

Students who apply from Grade 12 will be considered for admission at the discretion of the Senate Committee on Admission and Reregistration.

OR commencing September, 1986, successful completion of the *Ontario Secondary School Diploma (OSSD) including a minimum of six Ontario Academic Courses* with a minimum 65% overall average on the *Ontario Academic Courses*.

Students with exceptional ability may be considered without the above mentioned *Ontario Academic Courses* if they have also:

- (a) Successfully completed the equivalent of Algebra 11 (academic), English 11, Social Science 11 (such as History, Geography etc.), Science 11 and Language 11.
- (b) A minimum 75% overall average on the equivalent of English 12 and three academic Grade 12 level subjects.

Transfer credit will not be awarded for the *Ontario Academic Courses*. Students who apply without the *Ontario Academic Courses* will be considered for admission at the discretion of the Senate Committee on Admission and Pre-registration.

Please consult Admission Services for further information.

Québec: Le diplôme d'études collégiales (D.E.C.) on completion of the two year academic course of studies with a minimum overall average of 70%, at a collège d'enseignement général et professionnel (C.E.G.E.P.). Usually, this grants placement in Second Year.

Applicants who have completed two semesters at a C.E.G.E.P. with a minimum overall average of 70% will be considered for admission to First Year.

**(b) Applicants from Other Countries:**

If none of the qualifications below is appropriate to the country in which they received their secondary education, applicants may apply to the Director of Admission Services for consideration on an individual basis.

- (i) British General Certificate of Education (G.C.E.): Standing in at least 5 subjects including English, Mathematics, a second Language and a Laboratory Science and two academic electives, of which 3 must be at the Advanced (A) Level. A minimum overall average of C is required on the best three academic Advanced (A) Level subjects. A grade of E is not acceptable. Applicants presenting three (3) academic "A" Level subjects may be eligible to receive up to 15 units of transfer credit.

- (ii) Cambridge School Certificate: As for the G.C.E. (i) above, with stated standing in Principal Level courses.
- (iii) University of Hong Kong Matriculation Certificate: Standing equivalent to (i) above. Grades of D and E are not acceptable.
- (iv) Certificate of Matriculation issued by a recognized university, indicating admissibility to that university.
- (v) United States: High school graduation, with studies to include at the senior level (equivalent to British Columbia Grades 11 and 12): 4 semesters of English, 2 semesters of a Social Science (such as Geography, History, etc.), 2 semesters of Mathematics (academic), 2 semesters of a science and a second language, and 6 semesters of Grade 12 academic subjects with a grade point average equivalent to a British Columbia C+ on all academic subjects taken at the Grade 12 level.

**(c) Applicants with International Baccalaureate:**

Applicants who have successfully completed the International Baccalaureate Diploma requirements, three subjects at Higher Level and three subjects at Subsidiary Level, are eligible to receive up to 15 units of transfer credit.

**(d) Advanced Placement Program**

A student who has passed an Advanced Placement examination administered by the College Entrance Examination Board with a grade of 3 or better in one (or more) of the subjects listed below will be granted advanced placement in the subject(s):

Art (History, Studio)	Biology	Chemistry
Computer Science	English	French
German	History	Latin
Mathematics	Music	Physics
Political Science	Spanish	

For further information, contact Admission Services.

**3. Admission from Colleges and Other Universities:****(a) Application Procedures:**

Applicants are considered in three groups:

- (i) Those applicants who were eligible for admission to the University, under Regulation 1 or 2 above, before enrolling in another post-secondary institution, and who have maintained an average at least equivalent to the University of Victoria 2.00 on the latest attempted full year or equivalent in college or university courses that are acceptable for transfer credit will apply as described in Paragraph 1, under Application for Admission, on page 7.
- (ii) Those applicants who were not eligible for admission to the University on leaving secondary school, but who have successfully completed at least 12 units (8 semester courses) of college or university study that are acceptable for transfer credit and who have maintained an overall average at least equivalent to the University of Victoria 2.00 on the latest attempted full year or equivalent of study, will apply as described in Paragraph 1, under Application for Admission on page 7.
- (iii) Those applicants who either were not eligible for admission to the University on leaving secondary school, or are not eligible for admission under (i) or (ii) above, are invited to apply to the Director of Admission Services for individual consideration by the Senate Committee on Admission and Reregistration.

**(b) Transfer Credit**

Note: for applicants from British Columbia Colleges: the University of Victoria Transfer Guide, which is available from Admission Services, lists those courses that are acceptable for transfer credit at the University.

Applicants who have failed their last year or who have an overall weak record at another institution will not normally be permitted to transfer to the University of Victoria, even though they may possess the admission requirements for secondary school graduates.

Those persons planning to undertake preliminary studies at another institution should verify in advance that the courses which they propose to take elsewhere may be acceptable for transfer credit in their subsequent program at the University of Victoria.

Transfer credit granted on admission may or may not be applicable to the degree program selected by the student, that is, it is subject to the same regulations as credit earned at the University (See Credit, page 14).

Transfer credit granted in a degree program is limited and may not normally be applied to the final 30 units of the program. Exceptions to this regulation require the approval of the Dean of the Faculty concerned.

If a student's performance warrants a review of transfer credit granted on admission, the University reserves the right to require such a student to make up any deficiencies (without additional credit) before proceeding

to studies at a higher level. These decisions would normally be taken at the department level.

#### 4. Institutes of Technology and Colleges of Applied Arts and Technology:

A student with a completed Diploma from an Institute of Technology or College of Applied Arts and Technology may be admitted if the student has attained at least an overall average of 70%. The student should not normally expect to receive more than 15 units of credit, but in individual cases, at the discretion of the department(s) concerned, more credit might be granted. Consideration of admission and transfer credit will be given for a completed two year program at an Institute of Technology or for a three year program from a College of Applied Arts and Technology.

#### 5. Admission of Mature Applicants:

The University of Victoria is most willing to assist persons who are at least 21 years of age to complete their higher education even though they may not possess formal university entrance requirements. Students who have taken a full year or equivalent of university level courses are not eligible to apply under this regulation.

The Senate Committee on Admission and Reregistration deals with applications from mature persons on an individual basis. Candidates applying for admission are asked to carry out the following steps:

- (a) Request an Application for Admission by writing to the Director of Admission Services.
- (b) Return the Application for Admission together with a letter written by the applicant outlining work experience and relevant personal background, including reasons for wanting to attend university.
- (c) Arrange to have an official transcript of all academic work sent directly to Admission Services by the issuing institution.
- (d) Submit two reference forms from employers or persons who know the applicant well.

An interview with the Director of Admission Services or representa-

tive may be required after a completed application and the above mentioned letter, forms and transcripts have been received.

#### 6. Letter of Permission:

Students who wish to take courses at the University of Victoria for credit at their home university must have a Letter of Permission, in lieu of an official transcript, sent directly by the issuing institution to Admission Services, University of Victoria. For further information, contact the Director of Admission Services.

#### 7. Applicants Whose First Language is not English:

The University requires that:

- (a) Applicants for admission whose first Language is not English, and who have not resided in Canada or other English speaking countries for the five years immediately prior to the beginning of the session for which application is made, must take the test of English as a Foreign Language (TOEFL) and submit scores by July 31. A score of not less than 575 on the Test of English as a Foreign Language is required for admission to the University. Applicants whose first language is not English but who have resided in Canada or other English speaking countries for the five years immediately prior to the session for which application is made are not required to take the Test of English as a Foreign Language.

Note: Applicants must designate the University of Victoria as a receiving institution for the test results. Student copies are not acceptable.

- (b) All students who are admitted to the University must take the University of Victoria English Placement Test, unless they have satisfied one of the conditions stipulated for transfer students or are exempted under the regulations governing part time students (see English Requirement, page 12).

Information concerning the Test of English as a Foreign Language, and the times and places at which it is administered, may be obtained by writing to Education Testing Service, Princeton, N.J. 08540, U.S.A. Applications are available from the University's Counselling Services.

## REREGISTRATION

All inquiries relating to reregistration in undergraduate faculties should be addressed to the Administrative Registrar.

### APPLICATION FOR REREGISTRATION

1. Students who were registered in the most recent session at the University may be authorized automatically for reregistration without the submission of an application; some students will be required to complete an application. Students who were not registered in the most recent session must submit an application for reregistration. Consult Records Services for details.
2. A student who has been required to withdraw from the University in the past because of unsatisfactory progress or standing and who wishes to be considered for reregistration must include with the application a letter, addressed to the Senate Committee on Admission and Reregistration, c/o Records Services, which states why the student believes the application should be accepted. (See Standing, page 18.)

The Senate Committee on Admission and Reregistration will con-

sider all the documentation presented and will make a final decision regarding the student's application, subject to review by the Senate Committee on Appeals on the grounds of specific procedural error (see Avenues of Appeal and Redress, page 13).

3. Students who have registered at another university or college since last in attendance at the University are required to state the names of all educational institutions of postsecondary level attended and to submit official transcripts of their academic records at the institutions attended, by the due dates shown on the inside front cover of this Calendar. An evaluation fee of \$35 must accompany the application for reregistration for every applicant whose records originate in whole or in part outside the Province of British Columbia. This fee is not required from "visiting students" or from students who obtained a Letter of Permission from the University of Victoria to study elsewhere. The fee is not refundable, nor can it be applied to tuition.
4. If the results of deferred examinations affect the standing of a student, an Authorization to Reregister will not be issued until examination results are available.

## REGISTRATION

### Completion of Registration:

Inquiries relating to registration in undergraduate faculties other than Law should be addressed to the Director of Records Services. Inquiries relating to the registration in the Faculty of Graduate Studies should be addressed to the Admissions and Records Officer, Graduate Studies. See Faculty of Law for regulations concerning registration in that Faculty.

In addition to completing the procedures mentioned above under the headings Application for Admission and Application for Reregistration all students in the Winter Session are required to register as announced by the University (see Sessional Calendar, pp. 3 and 4). Each new student, by Letter of Admission, and each returning student, by Authorization to Reregister will be informed about procedures for registration. Sessional fees are payable at the time of registration.

All Letters of Admission or Authorizations to Reregister that are not used to register in the term and session to which they apply are automatically cancelled. Students who are issued a Letter of Admission or Authorization to Reregister for September may not use this document for entry in January (see Registration for One Term Only).

Registration in any course is not confirmed until:

- (a) all course prerequisites have been met;
- (b) the required registration procedures have been completed;
- (c) all required fees have been paid (see Payment of Accounts, page 19); and
- (d) classes in the course have begun and the student is in attendance.

Departments reserve the right to cancel the registration of any student who is not able to demonstrate that all course prerequisites have been met or who fails to attend a course within the period indicated below:

Winter Session courses: first seven calendar days from commencement of the course

May-August courses: first seven calendar days from commencement of the course

May-June courses: first two class meetings

July-August courses: first two class meetings

A student who for medical or compassionate reasons is unable to attend a course during the first seven calendar days of the term may apply

to the department within that time to confirm registration in that course and the department may confirm the registration. (See Student Responsibility, below, Attendance at Lectures, page 14, and Voluntary Withdrawal, page 18.)

#### Student Responsibility:

Students are responsible for ensuring that their courses have been chosen in conformity with Calendar regulations. Also, students are responsible for the completeness and accuracy of their registration. They must ensure that there is no discrepancy between the program they are following and that recorded in Records Services and that all changes, including those in address and telephone number are reported promptly to Records Services. Students may not take courses for which they have not registered, and may not drop courses without permission. Students who register in a course for which they have previously received credit or for which they have received equivalent credit on transfer must indicate this by entering DUP (duplicate) on their registration forms. Such courses will still count in the student's sessional average, however, when determining the student's standing. (See page 18.)

Students who have credit for courses taken more than seven years ago at the University must consult the departments to ensure that courses they may wish to take have not been taken previously under a different number.

A letter mailed to a student's address as currently on record in Records Services will be deemed adequate notification to the student for all matters concerning the University.

#### Late Registration:

The period for late registration in the Winter Session is the first five days of classes; in the Summer Studies, the first two days of classes.

#### Students with Unsatisfactory Standing:

No student with unsatisfactory standing will be permitted to register without permission of the faculty concerned.

#### Registration for Both Terms in Winter Session:

Students planning to undertake studies in both terms of the Winter Session must register in September for all courses they intend to take, including single term courses beginning in January.

#### Registration for One Term Only:

If suitable single term courses are available, students may:

- register during the registration period for September for a program of courses to be taken in the First or Second Term (see inside cover for due dates of applications);
- register during the registration period for January for a program of courses to be taken in the Second Term (see inside cover for due dates of applications).

#### Changes in Registration: (See due dates on pages 3 and 4)

- Students may add and drop courses during the first ten days of classes in the First Term and during the first ten days of the Second Term upon formal notification of Records Services.
- Students may drop First Term courses until the last day of classes in October and Full Year and Second Term courses until the last day of classes in February provided they submit the academic change form to Records Services, signed by the appropriate Dean. Failure to notify Records Services by the specified date will result in the student receiving a failing grade for the course. (See refunds for dropping a course, page 20.)
- A student who has a grade of E or F in a First Term course may re-register in the course if it is offered in the Second Term, provided that the student will be registered in not more than 9 units in the Second Term. A student who has an E in the First Term course may take a Second Term course which lists the First Term course as a prerequisite only with the permission of the department concerned.
- Any undergraduate student, who after registration decides to drop all courses, is withdrawing from the University and must notify Records Services in writing. (See Withdrawal, page 18.)

#### Concurrent Registration at Another Institution:

Normally a student may not be registered concurrently in courses offered at the University of Victoria and in university level courses offered at another institution. In exceptional circumstances, such registration may be permitted but only with the prior consent of the Dean of the Faculty concerned or the Administrative Registrar.

#### Registration in Graduate Courses by Undergraduates:

Students in their final year of a Bachelor's degree program who have a grade point average of at least 6.00 in the previous year's work may be permitted to register in up to 3 units of graduate courses on the recom-

mendation of the department concerned and with the consent of the Dean of Graduate Studies. Students in the Public Administration Diploma program who have completed at least 9 units of course work, and have a grade point average of at least 6.00, may be permitted to register in up to 4½ units of graduate courses in Public Administration upon the recommendation of the Director and subject to the approval of the Dean of Graduate Studies. Apart from students admitted to the Faculty of Graduate Studies, no students other than those mentioned above may register in graduate courses.

#### Application for Graduation:

See Graduation, page 18.

#### English Requirement for Undergraduates:

All students enrolling in the University for the first time must satisfy the University English Requirement. Exceptions are noted below. The English Requirement may be satisfied by any of the following:

- Three units or more of transfer credit for university level English courses.
- Specific equivalency for English 115 or 215.
- Satisfactory British Columbia English Placement Test (EPT) or Language Proficiency Index (LPI) scores.
- A grade of C+ or higher on the B.C. provincial English 12 examination.
- A grade of B or higher in grade 12 English or its equivalent, for all graduates of Canadian secondary schools whose first language is English, but who have not written the B.C. provincial English examination.
- A satisfactory score on the University of Victoria English Placement Test, which must be taken before the end of the registration period.

Students who have satisfied the University English Requirement need take only those English courses which may be required in their degree program. Students who fail to achieve a satisfactory score on the University of Victoria English Placement Test are directed as follows:

- Those whose first language is English must register in English 099 for the first term and in English 115 for the second term. Students in English 099 may not take any other English course until they have completed 099. Those who fail English 099 in the first term must repeat the course in the second term. If such students fail the course again, they must repeat it in the next winter session term that they attend; should they not do so, or do so and fail, they will normally be denied permission to return to the University in any future session until they have demonstrated the required level of competence in English. Such denials are subject to appeal to the Senate Committee on Admission and Reregistration. To qualify for reregistration, students must register in English 115 in the term following successful completion of 099 and in each subsequent term attended until passed. (Any deviation from this sequence must have approval from the Director of First Year English.) Upon successful completion of English 115 these students will have satisfied the University English Requirement.
- Those whose first language is not English must follow the same procedure as for those whose first language is English, but such students may be required to take Linguistics 099 either instead of or before English 099 according to their performance on the test and the decision of the English and Linguistics departments. Students who are registered to take Linguistics 099 will be admitted to the University only in September when the course begins and will follow one of these patterns:
  - Some students may be permitted to move out of Linguistics 099 at the end of first term, and will then proceed to English 099.
  - Upon completion of Linguistics 099, students will be required to take English 099 prior to English 115.
  - Students who fail Linguistics 099 will be required to repeat the course in the next year. If they pass the course at the second attempt, they will proceed according to (i) or (ii) above; if they fail Linguistics 099 at the second attempt, they will be required to withdraw from the University for insufficient command of the language of instruction.

For students who are placed initially in either English 099 or Linguistics 099, successful completion of English 115 is necessary to satisfy the University English Requirement. There must be no interruption in the sequence of courses without the permission of the Director of First Year English. The repetition of Linguistics 099, English 099, or English 115 must also occur in the next term attended. It should be noted that in the early weeks of English 099 and Linguistics 099 students may be switched from one course to the other or to English 115 upon the recommendation of the instructor.

**Exceptions:****I. Letter of Permission**

Those students who are admitted on a Letter of Permission are not obliged to satisfy the University English Requirement.

**II. Part time Students**

Part time students who fall into category 6 above are encouraged to satisfy the University of English Requirement before registering, but are not required to do so until they have accumulated three units of credit or wish to enroll in any English course.

Students can obtain information about registering for and writing the University of Victoria English Placement Test from Admissions Services or the Department of English.

**AUDITING A COURSE**

An individual who is either a registered student or a member of the community may be permitted to audit up to 3 units of undergraduate courses in a session. Registration as an Auditor is subject to the following conditions:

- The individual must receive permission from the department concerned.
- Admittance to the class is dependent upon the class size and other factors that the instructor and the department establish.
- The degree of participation in the course is at the discretion of the department.
- Attendance shall grant no entitlement to an academic record of such attendance and shall not be considered as meeting admission, prerequisite or course requirements for any University credit program.
- Graduate courses are not open to persons who are not registered in the Faculty of Graduate Studies, except as provided by the regulations of that Faculty.
- The fee, shown in the fee schedule in the Calendar, is payable at the

**AVENUES OF APPEAL AND REDRESS**

Students who have grounds for believing themselves unjustly treated within the University are encouraged to seek all appropriate avenues of redress or appeal open to them.

**Nonacademic Matters:**

Matters that are not strictly academic may be brought to the attention of appropriate University officials or bodies through the Counselling Services, the Student/Faculty Liaison Committee or similar faculty committee, the Dean or the President. In addition, the student may wish to consult the Alma Mater Society's Ombudsperson (see page 25).

**Academic Matters:**

Academic matters fall within the purview of course instructors, the departments, the Faculties and the Senate.

Depending on the nature of the academic matter of concern to the student, the order in which the student should normally seek redress is first, the course instructor; second, the departmental chairman; third, the Dean of the Faculty; and finally, the Senate. In addition, the student may wish to consult the Alma Mater Society's Ombudsperson (see page 25). A student seeking a formal review of an assigned grade should consult the regulations on page 17.

**Appeals to the Senate:**

Once all the appropriate recourses have been exhausted, students may have the right of final appeal to the Senate. Except on those matters in which the sole question raised turns on the exercise of academic judgement, students may appeal to the Senate on all matters which are within

time of registration and is not refundable. (See para. 7, page 20.)

**INDIVIDUALLY SUPERVISED STUDIES**

Individually supervised studies may be undertaken during the Winter Session; such studies will normally consist of Directed Studies courses. Students interested in pursuing such studies should contact the Advising Centre in the Faculty of Education or the appropriate department chairman in the other faculties. The availability of such courses will be determined by the department concerned.

For individually supervised studies in the Summer see the Summer Studies Supplement to this Calendar.

**MEDICAL REQUIREMENT**

A medical examination is not compulsory except for students taking Physical Education courses. The medical examination is not provided by the University; it must be obtained at the student's own expense.

The University, through the Health Services, may require a student to take a medical examination at any time during attendance at the University. This measure exists to safeguard the medical welfare of the student body as a whole.

**Students not Residents of Canada:**

Students who are not residents of Canada are required to produce evidence of adequate sickness and hospital insurance coverage before registration can be considered complete.

Such students are not eligible to receive hospital or medical insurance from the Province of British Columbia until they have established residency in the Province for 12 consecutive months. In the interim they must purchase hospital and medical insurance as a condition of registration.

Further information is found under Health Services, page 22.

the jurisdiction of the Senate as set out in the *University Act*. The Senate has delegated to its Standing Committee on Appeals the authority and responsibility to decide on behalf of the Senate all appeals from students on those matters which they may appeal to Senate. Students should lodge their appeal in writing with the Secretary of Senate and should include with the appeal a clear and precise statement of:

- the decision or act or treatment which is being appealed (including the name of the person or body whose decision, etc., is being appealed);
- the reasons why the appellant believes the appeal should be allowed;
- the remedy or relief which the appellant is seeking.

Unless provided for otherwise in a specific Calendar regulation an appeal to the Senate must be filed within six months of the decision being appealed.

The decisions of the Senate Committee on Appeals are final and may not be appealed to the Senate.

**Petitions:**

Students whose circumstances are such that an academic regulation appears to cause them undue hardship are encouraged to consult their faculty advising centre or departmental chairman to determine whether the regulation is subject to waiver by the Dean of the faculty on petition by a student. The Dean's decision in such matters is final, subject to review by the Senate Committee on Appeals on grounds of specific procedural error (see above).

**ACADEMIC REGULATIONS**

*Students should refer to the Calendar entries of the individual faculties for any additional or more specific academic regulations.*

**ATTENDANCE AND COURSE LOAD****Attendance at Lectures:**

Students are expected to attend all lectures in each course for which they are enrolled. Any Department is authorized to require a student to withdraw from a course offered by the Department if the student is registered in another course such that the timetables for the two courses overlap. Admission to a lecture or laboratory may be refused by the instructor for lateness, misconduct, inattention or neglect of duty. Stu-

dents who neglect their academic work, including assignments, may be debarred from the Christmas or the final examinations in a course. (See Term Assignments and Debarment from Examinations, page 16.)

**Absence Consequent on Illness:**

Students who are absent because of illness, an accident or family affliction should report to their instructors on return to classes.

**Minimum Course Load:**

Credit for courses may be accumulated by full time or part time studies in the Winter Session, or by studies in the Summer Studies. In certain programs, however, students are expected to commit themselves to stud-

ies in the Winter Session and to a specific number of units of courses; for example, Honours programs in Arts and Science require 15 to 18 units in each Winter Session. Students are therefore referred to the Calendar entries of the individual faculties for information on programs that require a commitment to a specific number of units of courses in each Winter Session.

Students should note that present regulations governing Canada Student Loans require a minimum enrollment of 9 units, and that to qualify for nearly all undergraduate scholarships, bursaries and prizes administered by the University, the terms of the awards require enrollment in a minimum of 15 units in each Winter Session, except as noted on page 251.

#### Maximum Course Load:

1. No student may register in more than 18 units in the period September-April.
2. No student may register in more than 9 units in either of the periods September-December and January-April.
3. No student may register in more than 9 units in the period May-August. A student registered in this period has the choice of registering in a maximum of 6 units of May-June courses *or* a maximum of 6 units of July-August courses.

Exceptions to these regulations require the prior written approval of the Dean.

#### Final Year Studies:

Normally, all students must complete the final 15 units of courses at the University of Victoria. In exceptional circumstances, however, a student may take the final year of study at another university, subject to the regulations mentioned under Graduation, page 18, and to the prior consent of the Dean of the faculty concerned.

A student authorized to attend another institution who accepts a degree from that institution abrogates any right to a University of Victoria degree until the student has satisfied the University's requirements for a second bachelor's degree. (See page 19.)

## REGULATIONS CONCERNING PRACTICA\*

#### General:

Through its several faculties\*, the University reserves to its individual departments, schools and programs, the right to approve any agency or institution that provides placements for student practica, and to change any placement assigned to a student. The student, however, has the right to be informed in writing of the reasons for any change in placement. While the University accepts a responsibility to provide a sufficient number of practicum opportunities to serve the needs of all registered students, a student may be required to withdraw from a practicum course if none of the available practicum agencies will accept that particular student.

#### Dates:

The dates of practica will be established by each faculty, department, school or program, and will be announced to the students involved at the beginning of each term.

#### Attendance:

Attendance at practicum activities is required. Students are expected to notify the placement agency whenever practicum appointments cannot be kept, and also to inform the course instructor.

#### Unethical or Unprofessional Behavior:

It is the responsibility of the course instructor to inform students of the criteria by which unethical or unprofessional behaviour will be judged in the practicum setting. Instructors who refuse students continued participation in a practicum for misconduct or repeated absence must immediately discuss the matter with their departmental chairman, who shall then either inform the students of the conditions under which they may resume participation in the practicum or require them to withdraw from the practicum course and inform them of the reasons for this in writing.

All students in the Faculty of Education placed in schools for teaching practica will be subject to the provisions of the *School Act* and the B.C.T.F. Code of Ethics. Any such student may be required to withdraw from a practicum for violation of any part of the *School Act*, or B.C.T.F. Code of Ethics or upon a written order from the Board of School Trustees in the district where the student is placed.

All students in the Faculty of Human and Social Development will be subject to the provisions of the codes of ethics of their respective professions, and may be required to withdraw from the practicum for violating these provisions.

#### Denial and Withdrawal:

- (a) Denial  
Students will be denied the practicum experience if their preparatory work is considered unsatisfactory by the Dean of the faculty.
- (b) Required Withdrawal  
Students may be required to withdraw from the practicum with a failing grade if their performance in the practicum or their practicum preparation is considered unsatisfactory by the Dean of the faculty.
- (c) Voluntary Withdrawal  
Students seeking voluntary withdrawal from a practicum, whether permanent or temporary, must receive permission to do so from their faculty supervisor.
- (d) Notification of Records Services  
Students who withdraw voluntarily from a practicum must notify Records Services in writing. Students who are required to withdraw from a practicum will be withdrawn from any course involved by written notification from the Dean to Records Services.

#### Readmission:

If students who have withdrawn from a practicum for whatever reason later wish to reenter the practicum they must apply for readmission to the course and should not assume that readmission is guaranteed.

#### Appeals:

The normal avenues of final appeal (see above) are available to students who have been required to withdraw from a practicum. Students in the Faculty of Human and Social Development may appeal the decision of the school or program director to the Faculty's Committee on Professional Behaviour in Practica before it is sent to the Dean for a final decision. Students in the Faculty of Education may follow regular appeal procedures within that Faculty.

\* Approved for the Faculty of Education and the Faculty of Human and Social Development.

## CREDIT

#### Accumulation of Credit:

Successful completion of a credit course entitles the student to the recording of such credit on the student's academic record. The application of such credit to a degree or diploma program, however, is subject to the regulations governing the requirements of the program. In the case of a course for which credit has been received and which is repeated, the units will be shown on the student's record in each instance but will count only once toward the degree or diploma unless the course is designated as one that may be repeated for additional credit.

#### Credit Limit — Introductory Statistics Courses:

The maximum allowable number of units of introductory statistics courses that may be taken for degree credit is limited to six, chosen from Biology 250, 304; Economics 240, 340; Geography 300, 321; Psychology 300; Sociology 371, 372, 471; Statistics 250, 251, 253.

#### Credit by Course Challenge:

Course challenge is intended to allow a registered undergraduate student to seek credit in a given undergraduate course on the basis of knowledge or experience acquired outside the University. It involves undertaking a special examination or other form of assessment administered by the relevant department.

Course challenge is not offered by all departments. Where it is offered, it is subject to the following restrictions:

- (a) Course challenge examination/evaluation normally must be completed before the end of the period for adding courses in both winter session and summer studies, at a time determined by the Department.
- (b) Credit by course challenge is limited to a maximum of 15 units, or for students on a diploma program to a maximum of 3 units.
- (c) No course whose equivalent appears on a student's secondary school, college or university transcript may be challenged.
- (d) Once credit in a course at one level has been obtained, its prerequisite in the same subject may not be challenged.
- (e) A specific course may be challenged only once.
- (f) Once the examination or assessment has been administered, the result will be entered on the student's academic record. The student may not choose whether or not the result will be recorded.

Initial inquiries should be directed to Records Services, where application forms may be obtained. The course challenge fee must be paid before the challenge examination is undertaken. If the appropriate departmental chairman permits a course challenge, the chairman shall indicate approval by signing the application form and shall inform the

student of the time at which the challenge examination will take place. Once the application has been approved, the course challenge fee is not refundable. (See para. 2(c), page 19.)

A range of authorized assessment techniques is available for evaluating the student's course challenge. Whatever technique is chosen, it shall be such that the examination procedure and the results are recorded and kept in the department.

The chairman, after having approved the results, will report the grade awarded in the course challenge examination to the student and Records Services in writing.

The grade will be entered on the student's academic record and will be used in determining the student's sessional standing.

All students, including newly admitted students, are urged to complete challenge examinations before the end of the period for adding courses, so that any course changes necessitated by the examination results can still be made.

#### Advanced Placement or Exemption Without Unit Credit:

In exceptional circumstances, undergraduate students may already have prepared themselves by independent study or other experience to omit a required course or courses or to undertake more advanced work than that ordinarily prescribed in the initial stages of a departmental program. Students desiring advanced placement in a particular discipline may apply to the department giving courses in that discipline for such placement.

Advanced placement or exemption from a required course carries no unit credit.

#### Credit for Courses Passed in a Failed Year:

A student who registers in a degree program may apply for credit in courses which were passed within a "failed year" either at the University of Victoria (prior to 1970-71) or at another university or college and which are applicable to the student's degree program but for which University credit was not previously granted.

Application for credit in such courses passed at the University of Victoria must be made in writing to Records Services.

Application for credit in such courses passed at other institutions must be made in writing to: The Senate Committee on Admission and Registration, c/o Records Services, University of Victoria. The Committee will judge each case separately on its own merits.

### REPEATING COURSES

A required course in which a passing grade has not been obtained must be repeated or a permissible substitute taken in the next session attended. However, no course may be taken more than twice unless the course is a required course that is outside the student's main area(s) of study.

No student may repeat a course for additional credit unless the course entry specifically states the course may be so repeated.

### PROMOTION

Students may not proceed to courses in a higher year unless they take concurrently all courses required to clear deficiencies in the lower years, subject to the limitations mentioned above. Students may proceed only to courses for which they have successfully completed prerequisites to the satisfaction of the department concerned.

### CHEATING

The standards and reputation of any university are the shared responsibility of its faculty and students. Within the obvious limits implicit in the difference between undergraduate work and specialized research, students at the University of Victoria are therefore expected to observe the same standards of scholarly integrity as their academic and professional counterparts. Clearly, a large part of the work done at the undergraduate level must involve the handling at second hand of ideas and material originally conceived or made accessible by others. Equally clearly, however, there is a difference between the use of an acknowledged restatement of such ideas and material after intelligent and critical assimilation and their unacknowledged, literal reproduction in the guise of new and original work. The latter amounts to cheating; and cheating, whether it take the specific form of *verbatim* and unacknowledged copying from the writing of others (also see Duplicate Essays, below), or whether it appears in other forms, such as the fraudulent manipulation of laboratory processes in order to achieve desired results, the use of commercially prepared essays in place of a student's own work or reference to unauthorized materials in examination circumstances, vitiates the purposes of a university education. While such practices may well stop short of "crime" in the sense that they may escape from the formal

rigours of the law, they nevertheless constitute in all cases an offence against intellectual honesty. This renders forfeit not only the integrity of the individual involved but also the reputation of those who condone such lapses. Sanctions will therefore be enforced against cheating, ranging in severity as befits the individual case from simple reimposition of work, through forfeiture of credit for the particular assignment or the particular course involved, to possible suspension from the University in the most extreme, deliberate or persistent cases.

Offences of this kind may, however, occur in a multitude of different ways and circumstances in different disciplines, and, especially at the undergraduate level, their fair treatment will frequently entail the consideration of contingent factors. These require the flexible exercise of equitable jurisdiction at all levels from the individual instructor upwards. The University as a whole does not therefore propound a single comprehensive definition of cheating in all its shapes and forms beyond the general statement of position and principle herein advanced; nor does it specify an invariable code of pains and penalties. It does, however, reserve to its academic departments severally the power, under normal circumstances, to inculcate and enforce proper standards of scholarly integrity by whatever internal procedures seem most appropriate to their respective disciplines, saving only that in matters involving student breaches of academic ethics, appeal may be made to the President if either party to the case so desires.

### IMPROPER BEHAVIOUR AND UNAUTHORIZED ACTIVITIES

Any student (a) whose behaviour causes or is likely to cause wrongful injury to any person or damage to the University or its property, or (b) who violates the British Columbia liquor regulations within the precincts of the University, or (c) who unlawfully enters a building on the campus, will be reported to the President for disciplinary action and may be suspended, subject to appeal to the Senate.

#### Sexual Harassment:

The University of Victoria does not condone sexual harassment and seeks to prevent sexual harassment of its students and employees. Unwelcome sexual advances, requests for sexual favours or other verbal or physical conduct of a sexual nature may constitute sexual harassment. Questions or complaints may be discussed with one of two appointed advisers who will explain the options available through University policy or collective agreements. Sexual Harassment Advisers are listed in the Campus Telephone Directory. The full text of policy and procedures is available from the Advisers, A.M.S. Ombudsperson, and Counselling Services.

### GRADING SYSTEM

	Grade Point Value	
<b>Passing Grades:</b>		
A+	9	First Class
A	8	
A-	7	
B+	6	Second Class
B	5	
B-	4	
C+	3	Pass
C	2	
D	1	
* COM	N/A	Marginal Pass Complete (pass)
<b>Failing Grades:</b>		
E	0	Conditional supplemental
F	0	No supplemental
N	0	Did not write examination or otherwise complete course requirements by the end of the term or session; no supplemental
<b>Temporary Grades:</b>		
* INC	N/A	Incomplete
* DEF	N/A	Deferred examination granted
* INP	N/A	In Progress
* CIC	N/A	Coop Interrupted Course

- \* COM — used only for 0 unit courses and those credit courses designated by the Senate. Such courses are identified in the course listings.
- INC — used for those Winter Session credit courses designated by the Senate, to be replaced by a final grade by June 1 (except for Education 799, by August 1). Such courses are identified in the course listings.
- DEF — Used only for courses in which a deferred examination has been granted because of illness, an accident or family affliction. (See below.)
- INP — used only for courses designated by the Senate, to be replaced by a final grade by the end of the next Winter Session. If the student does not reregister then the final grade will be N. Such courses are identified in the course listings.
- \* CIC — see para. 12, p.28.

For letter grades authorized for use in the Faculty of Graduate Studies and Faculty of Law, see entries under those faculties.

The table shown above constitutes the official University grading system used by instructors in arriving at final assessments of student performance.

#### Numerical Scores:

A department may authorize the use of numerical scores or marks in courses, where appropriate, but each numerical score or mark must in the end be converted to a letter grade. Where a department authorizes the use of a numerical system in its courses, it is the responsibility of the instructor to inform the students in the course of the relationships between the departmental numerical system and the University letter grade system.

## EVALUATION OF STUDENT ACHIEVEMENT

### Assessment Techniques:

For the purposes of evaluating student performance, each department shall formally adopt those assessment techniques which the department considers generally appropriate for its courses, taking care to ensure that instructors within the department have some options.

Techniques commonly used, where appropriate, include the following: assignments; essays; oral or written tests, including midterms; participation in class discussions; seminar presentations; artistic performances; professional practice; laboratory examinations; "open book" or "take-home" examinations; and examinations administered by the instructor or Records Services during formal examination periods. Self evaluation is not permitted to determine the grade in any course, in whole or in part.

Final examinations, other than language orals or laboratory examinations, shall be administered during formal examination periods. Regardless of the techniques chosen by a department, tests counting for more than 15 per cent of the final grade shall not be administered, in any regular thirteen week term, during the last two weeks of classes or in the interval between the last day of classes and the first day of examinations, or, in any Summer Studies course, during the three class days preceding the last day of the course. Neither the department nor the instructor, even with the apparent consent of the class, has the right to set aside these regulations. No instructor may schedule any test that conflicts with the students' other courses or any examination that conflicts with the students' other examinations in the official examination timetable. No instructor may schedule any test during the last two weeks of classes in a regular thirteen week term unless an advance notice of six weeks has been given to the students in the course.

When beginning a course, the instructor is responsible for ensuring that the departmental chairman and the students in the course are informed in writing:

- a) of the technique or combination of techniques to be used in the assessment of students' performance in the course;
- b) of how assignments, tests and other work of the course will be evaluated and the weight which generally will be given to each part of the course;
- c) where numerical marks form the basis of the evaluation of the course or any part of the course, of the mechanism to be used in converting the marks to final letter grades.

Reviews of final grades are governed by the regulations on page 17.

### Correction and Return of Student Work:

Instructors are normally to return all student work submitted that will count toward the final grade, except final examinations.

Instructors are to give corrective comments on all assigned work submitted and, if requested to do so by the student, on final examinations.

### Laboratory Work:

In any course which includes laboratory work students will be required to make satisfactory standing in both parts of the course. Results

in laboratory work will be announced by the department concerned prior to the final examinations, and students who have not obtained a grade of at least D will be permitted neither to write the examination nor to receive any credit for the course. If satisfactory standing is obtained in the laboratory work only and the course is repeated, exemption from the laboratory work may be granted with the consent of the department. The same rules may, at the discretion of the departments concerned, apply to nonscience courses with laboratory work.

### Duplicate Essays:

An essay or assignment to be submitted for two courses is acceptable only when both instructors have been informed of the student's intention to submit a duplicate essay or assignment and have given their written permission to the student.

In instances where essays or assignments essentially the same in content are submitted in more than once course without prior written permission of the instructors, partial or total credit for the essay or assignment may be withheld in any or all of the courses involved.

### Term Assignments and Debarment from Examinations:

In some courses students may be assigned a final grade of N or debarred from writing final examinations if the required term work has not been completed to the satisfaction of the department concerned. Instructors in such courses shall advise students of the standard required in term assignments and of the circumstances under which they would be assigned a final grade of N or debarred from examinations.

### English Deficiency:

Term essays and examination papers will be refused a passing grade if they are deficient in English; and, in this event, students will be required to pass a special examination in English to be set by the Department of English.

### Examinations:

Examinations in the Winter Session are held in December and April. Timetables are posted on official University bulletin boards at least two weeks before the dates announced for the beginning of December and April examinations.

### Illness, Accident or Family Affliction at Examination Time:

1. A student who falls ill during an examination or misses an examination because of illness, an accident, or family affliction may be eligible for a deferred examination.
2. A student who, though suffering from illness, an accident, or family affliction writes a final examination may also be eligible for a deferred examination.
3. In both 1. and 2., above, a physician's certificate or other substantiating document must be submitted to Records Services normally within ten working days of the end of the examination period. Records Services will communicate with the instructor for an assessment of the student's performance. Deferred examinations are granted only where final examinations are involved. In cases where the instructor does not give a deferred examination but assigns a final grade based on an assessment of the student's performance in the course work, the grade will appear on the student's record with the notation "AEG" (Aegrotat, see Glossary, page 6).
4. For courses finishing in April, deferred examinations are normally held about the beginning of August. For courses which finish in December and are prerequisite to courses starting in January, deferred examinations are normally held by the end of the first two weeks in January. For courses which finish in December and are also offered in the second term, deferred examinations may be given in April. For other courses, deferred examinations are scheduled by arrangement.
5. The grade obtained on a deferred examination will be used in calculating the sessional grade point average. If a deferred examination is not written, the final grade for the course becomes N.

### Regulations Governing Administration of University Examinations:

1. Candidates may not enter the examination room until invited to do so by the invigilator in charge.
2. Candidates are not permitted to enter the examination room after the expiration of one half hour, nor leave during the first half hour of examination. Invigilators should send unusual cases to Records Services at once.
3. Candidates shall not make use of any books or papers other than those provided by the invigilators or authorized by the instructor in charge of the course.
4. Candidates shall not communicate in any way with each other. Candidates are not permitted to ask questions of the invigilator, except in cases of supposed errors in the papers.

5. A candidate who believes there is an error in a paper should report it immediately to the invigilator, and, after the examination, report the error in writing to Records Services. If there are other reasons for complaint, the candidate should communicate with that office within 24 hours.
6. Candidates may not leave the examination room without first delivering their examination booklets to the invigilator.
7. Candidates are advised not to write extraneous material in examination booklets.
8. Candidates who wish to speak to the invigilator should raise their hand or rise in their place.
9. Candidates may be called upon by an invigilator to produce identification papers bearing a photograph to prove their identity.
10. Candidates leaving or entering examination rooms should do so quietly in order not to disturb others. Having left the examination room, candidates are asked not to gather in adjacent corridors, lest they disturb candidates who are still writing.
11. Smoking is not permitted.
12. Candidates who fall ill during an examination should report at once to the invigilator.
13. Candidates who fall ill or suffer an accident or family affliction before an examination should report the circumstances immediately to Records Services.
14. In cases of extreme misconduct, invigilators are empowered to expel candidates from an examination room. Under such circumstances, candidates may be required to withdraw from the University following an investigation of circumstances surrounding the misconduct.
15. Invigilators may require candidates to remain quietly in their seats for the last 15 minutes of the examination.

#### Release of Grades:

Instructors are permitted to release final grades informally to students in their classes, on request, as soon as the grades have been forwarded to Records Services by the department, on the understanding that formal approval and release is the prerogative of the Senate. Following authorization by the Senate statements of final grades are mailed to students by Records Services (about the end of May for Winter Session courses and early in September for Summer Studies courses).

First term results for full year courses are released by the instructors, not by Records Services.

#### Student Access to Final Examinations:

All final examinations are stored in the departmental office or the Records Services Office for six months after the official release of grades except when a review of an assigned grade or an appeal to the Senate Committee on Appeals is in progress. In the case of a review of an assigned grade the relevant material will be retained for a further six months. In the case of an appeal to the Senate the relevant material will be retained for six months after a final decision has been reached. Students are permitted access to final examination questions and their own answers on request to their instructors or departmental chairmen after the grades have been submitted to the Records Services Office by the departments. This access to the final examinations does not constitute a request for a review of an assigned grade. Students wishing to have grades reviewed should follow the procedure outlined in the following section. Students are allowed to purchase a photocopy of their own final examination answer papers and, unless withheld by the instructor with the agreement of the departmental chairman, of the final examination questions.

#### Review of an Assigned Grade:

**Final Grades:** Reviews of final grades are governed by the following regulations, subject to any specific regulations adopted by the faculties:

1. Any request for review of a final grade must normally reach Records Services within 21 days after the release of grades.
2. Each applicant must state clearly in writing the grounds for believing that the grade awarded should be raised.
3. Students should retain all written work returned to them by the instructor during the term and make such work available where the grade to be reviewed has involved such term work.
4. It is the responsibility of each of the faculties to ensure that steps are adopted to be followed in the carrying out of reviews of grades assigned in courses offered within the faculty, and that such procedures provide for examination of the review results by a person or persons not directly involved. Wherever possible, every effort should be made to complete the review process within 21 days after the receipt of the application for review.
5. The grade determined by means of a review shall be recorded as the final official grade, irrespective of whether it is identical to, or higher

or lower than, the original grade.

**NOTES:** Prior to application, a student considering a request for a formal review of a final grade ought to make every reasonable effort to discuss the assigned grade with the instructor. Mathematical marking errors will be rectified without recourse to the review procedures. (See Student Access to Final Examinations, above.)

Requests for review or other consideration based on compassionate grounds such as illness are governed by separate regulations (see *Illness, Accident or Family Affliction*, above).

Prospective applicants are advised that examination papers assigned E or F grades (and D grades in some faculties) are automatically read at least a second time before the grades are recorded. For that reason, an applicant who is eligible for a supplemental examination should prepare for the examination since a change in grade might not be available before the time of the supplemental examination.

**Grades for Term Work:** During the session, students who believe that a grade awarded for term work is unfair should discuss the matter informally with the instructor concerned. If discussion with the instructor fails to resolve the matter, the student should appeal directly to the chairman of the department.

#### Undergraduate Supplemental Examinations:

The following regulations apply to all faculties except the Faculty of Law (see regulations of that Faculty) and the Faculty of Graduate Studies.

Supplemental examinations are not offered by all departments. Students will be advised whether or not a supplemental examination will be offered when assessment techniques are announced at the beginning of the course. Where supplementals are permitted by a department, they are governed by the conditions shown below and the regulations that follow:

1. Students may apply to write a supplemental examination in a course only if they have written a final examination and have received a final grade of E in the course.
2. Students taking 15 or more units in the Winter Session will be granted supplemental examinations only if they have passed at least 12 units of courses in that session. The maximum number of units of supplemental examinations allowed is normally 3. However, the Dean of the student's faculty may authorize supplemental examinations in an additional 3 units if the student will complete a degree by passing all the supplemental examinations granted.
3. Students enrolled in Summer Studies courses or taking fewer than 15 units in the Winter Session may be granted supplemental examinations for no more than 3 units, each such case being judged on the basis of the student's overall standing by the Dean of the student's faculty.
4. A student in the final year of a degree program who obtains a failing grade in a supplemental examination, may be granted a second such examination, at the discretion of the Dean of the student's faculty, if a passing grade in the second examination will complete the student's degree requirements.
5. A student who obtains a grade of E in a course completed in December may, if eligible, either repeat the course in the Second Term if it is offered or write a supplemental examination in August.

Any passing grade obtained on a supplemental examination will be shown in the student's academic record with a grade point value of 1, corresponding to a D, and will be taken into account in the determination of the graduating average and the class of degree, but will not affect the sessional grade point average.

Supplemental examinations cover only the course work covered by written final examinations. If there was no written final examination in the course, or if a passing grade in a supplemental examination will not yield an overall passing grade in the course, a supplemental examination will not be provided.

Supplemental examinations for Summer Studies courses and for courses taken by students who are in attendance only during the First Term of the Winter Session are arranged in consultation with the Dean who grants them. Supplemental examinations for all other courses taken in the Winter Session are written about the beginning of August.

Students who fail to write a supplemental examination at the scheduled time forfeit both their eligibility and any fees paid for the supplemental.

Applications for supplemental examinations, accompanied by the necessary fees, must reach Records Services by the following dates:

- (a) Courses taken by students in attendance only during the First Term, Winter Session — February 15;
- (b) All other Winter Session courses — July 1;
- (c) Summer Studies courses — October 15.

Supplemental examinations for courses mentioned in (a) and (c), above, are scheduled by arrangement. Those for courses mentioned in (b), above, may be written at the University as well as the following British Columbia centres: Cranbrook, Dawson Creek, Kamloops, Kitimat, Penticton, Powell River, Prince George, Prince Rupert, Trail, Vancouver; and at Whitehorse, Y.T. Other centres outside British Columbia are restricted to universities or colleges.

For fees for supplemental examinations, see para. 7 (f), page 20.

## STANDING

### Sessional Grade Point Average:

The sessional grade point average is based only on courses which have a unit value. Courses bearing the grade COM are ignored.

(A grade point average is found by multiplying the grade point value of each grade by the number of units, totalling the grade points for all the grades, and dividing the total grade points by the total number of units.)

### Academic Probation and Minimum Sessional Grade Point Average:

Undergraduates who fail to obtain a sessional grade point average of at least 2.00\* (or equivalent if a University of Victoria student takes courses elsewhere for credit towards a University of Victoria program) are considered to have unsatisfactory standing and will be placed on academic probation for the next session attended.

A student who has a marginal record upon admission may be placed on probation by the Senate Committee on Admission and Registration.

A student who is on academic probation and whose sessional grade point average falls below 2.00\* (or equivalent if a University of Victoria student takes courses elsewhere for credit towards a University of Victoria program) will be required to withdraw, normally for one academic year.

A student who is required to withdraw a second time will not be permitted to register for credit courses at the University for at least five years.

In all cases students will be notified by Admission Services or Records Services that they have been placed on probation. Such students may wish to seek assistance from the appropriate Advising Centre or Faculty Dean's Office, Counselling Services, or to take the Reading Course and Study Skills Course or Workshops which are offered to all students by Counselling Services.

Depending upon a student's performance during the period of probation, the Dean may at any time either remove the student from probation for the remainder of the session, or acting on a decision of the faculty require that the student withdraw from the University. (See below: Withdrawal for Unsatisfactory Progress.)

Students who are on probation in a session are not eligible for authorization or registration in the subsequent session until their current sessional grade point average has been determined.

This regulation governs all sessions, including Summer Studies (the period May through August).

\* Individual Faculties may set a higher grade point average.

## WITHDRAWAL

A student may be suspended or may be required to withdraw from the University at any time for unsatisfactory conduct or for failure to abide by regulations. (See regulations of the individual faculties concerning mandatory withdrawal.)

### Voluntary Withdrawal:

Any undergraduate student who after registration decides to withdraw from the University must notify Records Services in writing. It is recommended that students visit Counselling Services to discuss their decision and plans and visit their Faculty Advising Centre to discuss their academic status and prospects, before going to Records Services. Students in the Faculty of Law should speak with the Dean. Students who are prevented by circumstances from withdrawing in person must do so by letter addressed to Records Services. Students will be required to obtain clearance from the University, to the satisfaction of Records Services, before being recommended, where applicable, for refund of fees.

Students in the Faculty of Graduate Studies should consult the Dean before giving formal notice of withdrawal.

(See Changes in Registration, paragraph 2, page 12 and dates on pages 3 and 4. Summer Studies students: See Summer Studies Supplement, page 4.)

### Withdrawal for Unsatisfactory Progress During a Session:

Any undergraduate student who has been placed on probation and whose progress is deemed unsatisfactory, may upon the decision of the

faculty and on notification by Records Services, be required to withdraw from the University for the remainder of the session. A student so required to withdraw may appeal to the Senate for a review of the case by lodging a written appeal with the Secretary of Senate. (See Avenues of Appeal and Redress, page 13.)

## GRADUATION

### Application for Graduation:

Senate grants degrees in November and May each year. Each candidate for a degree must make formal application for graduation when registering in the final Summer or Winter Session preceding the candidate's anticipated graduation. Candidates who have received permission to complete a course or courses elsewhere must apply for graduation not later than July 1 for fall graduation or December 1 for spring graduation. Special forms for this purpose are available from Records Services.

### Minimum Degree Requirements for Graduation:

Each candidate for a first Bachelor's degree (in a faculty other than Law) is required:

- To have satisfied the University English requirement (see page 12);
- to present credit in a minimum of 60 units of university level courses numbered 100 and above; at least 21 of the units must be numbered at the 300 or 400 level, and at least 30 of the units must normally be in courses that have been completed at the University. (See Transfer Credit, page 10, Credit by Course Challenge, page 15, A Second Bachelor's Degree, below, and graduation requirements of the Faculty of Education.)
- to meet the specific degree and program requirements prescribed by the undergraduate faculty in which the candidate is registered.

### Standing at Graduation:

#### (a) Graduating Average

The graduating average of a student in an undergraduate faculty other than Law shall be determined as the weighted average of the grade point values of the letter grades (other than COM) assigned to 300 and 400 level courses taken or challenged at this University and accepted for credit in the student's degree program in the faculty concerned. If the total unit value of all such courses does not exceed 30, all such courses will be included in the average. If the total exceeds 30 the average will be taken on a maximum of 30 units of such courses chosen so as to give the highest average, including, where necessary, the appropriate fraction of a course.

Students must have standing at graduation of at least 2.00 in order to graduate.

#### (b) Class of Degree

Students whose graduating averages are 3.50 or higher will be placed in one of the following classes on the basis of the graduating average, subject to any additional requirements specified by the individual faculties and their departments with respect to standing at graduation:

- First Class, an average of 6.50 or higher;
- Second Class, an average from 3.50 to 6.49.

The above does not apply to students who are granted permission to undertake their final year at another university (see page 14). The classes of degrees to be awarded to such students shall be determined by the Dean of the faculty in consultation with appropriate departments.

### Graduation Exercises:

The formal conferral of degrees takes place at a Convocation ceremony in the fall and spring each year. Graduates become members of the Convocation of the University as soon as their degrees are granted by the Senate.

## A SECOND BACHELOR'S DEGREE

Under the following conditions, a student who has a bachelor's degree from the University of Victoria or another recognized institution may be allowed to pursue undergraduate studies leading to a second bachelor's degree:

- The student must be admissible to the program of the second degree.
- The principal area of study or academic emphasis of the second degree must be distinct from that of the first degree.
- At least 30 units of credit must be completed, beyond those units required for the first degree; normally, 21 of these 30 must be at the 300 or 400 level.
- The student must meet all program and graduation requirements for the second degree beyond those required for the first degree.

In certain cases, it may be possible to complete the requirements of two University of Victoria degrees concurrently, subject in all cases to the conditions mentioned above.

Application to pursue a second bachelor's degree should be made at the time of application for admission or reregistration, as appropriate (see pages 7 to 11). Students currently enrolled in their first bachelor's degree program should make application to the Dean of the appropriate faculty.

The University reserves the right to limit the number of students admitted to the University for the purposes of completing a second bachelor's degree.

Note: students who have completed or plan to complete courses which they expect to apply towards the requirements for a second degree should check with the Deans of their faculties at least two months before graduating from their first degree programs to determine if they will be able to

include these courses in their second degree programs.

### TRANSCRIPT OF ACADEMIC RECORD

On request of the student, a certified transcript of the student's academic record will be mailed by Records Services direct to the institution or agency indicated in the request. Each transcript shall include the student's complete record at the University to date. Since standing is determined by the results of all final grades in the session, transcripts are not available for first term grades until the end of the session, unless the student has attended the first term only.

Students' records are confidential. Transcripts are issued only at the request of students or appropriate agencies or officials.

Application for a transcript should be made at least one week before the document is required.

Fees for transcripts of academic record: see para. 7 (h), page 20.

## FEES

### NOTICE

*It is expected that it may be necessary to increase fees above the levels shown. Notice of any required changes will be given as far in advance as possible by means of a Calendar Supplement.*

#### 1. PAYMENT OF ACCOUNTS

- (a) The obligation to pay fees for a course or program is incurred upon registration, subject only to adjustments for officially recorded course drops, withdrawal, cancellation of registration or change of status.
- (b) Payment of fees is due by the following dates:  
 First term ..... September 30  
 Second term ..... January 31  
 Any additional fee charges resulting from subsequent changes in registration are due by the end of the month in which such changes are made.
- (c) Fees for a term comprise:  
 full tuition for term courses taken that term,  
 one half tuition for full year courses/programs taken that term,  
 any other fees assessed for that term.  
 any other fees assessed for that term.
- (d) Students are responsible for ascertaining their fees from this Calendar and any Calendar Supplements or from statements of account available at Accounting Services. Graduate students are also advised to consult Graduate Records about their initial assessments and the effect of subsequent changes in registration.
- (e) Statements of account are not mailed in advance, but may be collected at Accounting Services immediately prior to September 30 and January 31. Payment must be made by due dates whether or not a statement of account is received. *Failure to pay full fees by October 30 in the first term or by February 28 in the second term results in automatic cancellation of registration.*
- (f) Service charges of 2% a month (minimum \$2.00) are added to overdue accounts.
- (g) Students with overdue accounts are subject to loss of registered status and denial of services. These services include re-registration; use of libraries; access to classes and examinations; issue of loans, awards, grades, transcripts, degrees and documents certifying enrollment or registered status.
- (h) Students who withdraw or otherwise leave the University remain liable for settlement of unpaid accounts. The University may seek to enforce its rights as a creditor through legal action or the use of collection agencies.

#### 2. FEES FOR UNDERGRADUATE PROGRAMS OTHER THAN LAW

- (a) Tuition, per fee unit ..... 94.00
- (b) Courses are assigned a fee unit value for the purpose of tuition fee assessment. Where this fee unit value is different from the academic unit value it is shown either in the course description or as follows:

	Academic Units	Fee Units
Art 120, 130, 140, 220, 231, 232, 233, 240	1.5	1.7
Art 321, 322, 323, 332, 333, 341, 342, 390, 490	3.0	3.4
Art 499	12.0	12.9
Art Education 101	2.0	2.3
Art Education 103, 303, 304	3.0	3.4
Art Education 200, 201, 205, 208, 305, 306, 307, 308, 309, 310, 318, 319, 320	1.5	1.7
Engineering 395, 446	1.0	1.1
Engineering (all other courses)	1.5	1.6
Geography 325	1.5	1.8
Geography 427	1.5	1.9
History in Art 488,489	1.5	5.0
Music 140, 240, 340, 440	2.0	2.4
Music 145	3.0	3.7
Music 245, 345, 445	6.0	6.7
Nursing 302 (Distance Education)	3.0	4.0
Russian 304	1.5	1.6
Theatre 240, 340, 341, 342, 343	3.0	3.4
Theatre 343	1.5	1.7
(c) Course challenge, per fee unit		47.00
May be waived for students who have completed a noncredit diploma program and paid equivalent credit program fees - apply to University Extension		
(d) Cooperative program, per work term		188.00
(e) Coop work term challenge		94.00
(f) Students taking on campus courses, per term	4½ units or more	Less than 4½ units
Alma Mater Society - activity	23.00	11.50
- building fund	10.00	5.00
	<u>33.00</u>	<u>16.50</u>
Athletics/Recreation	10.00	5.00
(g) Students applying to graduate		
Graduation		25.00
Alma Mater Society graduating class		10.00
		<u>35.00</u>

#### 3. FEES FOR FACULTY OF LAW

- (a) Application ..... 30.00
- (b) First year acceptance deposit ..... 100.00  
 Forfeited if student does not register, but \$50.00 refundable if withdrawal of application received before August 10.
- (c) Tuition - full time ..... 1,802.00  
 - part time, per fee unit ..... 120.00
- (d) Law Students Society ..... 15.00
- (e) Athletics/Recreation, Graduation and Alma Mater Society fees  
 As shown in Section 2.

**4. FEES FOR VISA STUDENTS**

- (a) Visa students registering in undergraduate courses/programs are required to pay tuition fees at 1.75 times the rates shown in preceding sections.
- (b) Where reciprocal agreements exist, visa students are exempted from these differential fees.
- (c) No differential fees are charged for History in Art 486, 488 and 489.

**5. FEES FOR GRADUATE PROGRAMS**

For fee assessment purposes, the word "term", as used below, is defined as any one of the following periods: September-December; January-April; May-August; May-June; July-August.

- (a) Public Administration program acceptance deposit . . . 100.00  
Forfeited if student does not register, but \$50.00 refundable if withdrawal of application received 28 days prior to classes.
- (b) Tuition: full time graduate fee assessment per term . . . 602.00  
part time assessment per term . . . . . 301.00
- (c) There are additional fees for the following courses. These fees do not form part of the maximum tuition under paragraphs (a), (e) or (f).
  - Music 540 . . . . . 35.00
  - Music 545 . . . . . 70.00
  - Theatre 508, 509, 510, 520, 521, 523 . . . . . 35.00
- (d) Payment of 5 full time graduate fee assessments is required for the Master's degree. However, if all program requirements are completed within 16 consecutive months of the start date of the program, this will be reduced to 4. If all program requirements are completed within 12 consecutive months of the start date of the program, the amount required will be reduced to 3.
- (e) Payment of 7½ full time graduate fee assessments is required for a Doctoral degree.
- (f) When the Master's and the Doctoral degree are both completed at the University of Victoria, payment of 5 full time graduate fee assessments is required for the Doctoral degree.
- (g) Reregistration fees are required from students who have paid the fee assessments for their degree but have not completed program requirements. They are assessed after: 24 months from the start date of the Master's program (excluding M.P.A. students, for whom the assessment point will be 36 months); 36 months from the start date of the Doctoral program (for students in a Ph.D program composed of less than 45 units); 48 months from the start date of the Doctoral program (for students in a Ph.D. program composed of 45 units or more).  
Students enrolled in the cooperative education option will have 8 months added to the relevant Master's time period and 12 months added to the relevant time period for the Ph.D.  
Reregistration fees are assessed according to the following schedule:  
Until maximum completion limits (as defined in 5.2 on page 215 of the 1987-88 Calendar) per term . . . . . 201.00  
Thereafter, per term . . . . . 602.00
- (h) Tuition fees paid by nondegree students do not count towards the graduate fee assessment requirement for a degree. Nondegree students are subject to the assessments outlined in section (b).
- (i) Cooperative program fee, per work term . . . . . 201.00  
This fee is extra to degree and is not included as part of the maximum tuition under paragraphs (d), (e), or (f).
- (j) Athletics/Recreation, per term . . . . . 10.00
- (k) Graduate Students Society, per term
  - Activity . . . . . 7.00
  - Building Fund . . . . . 8.00

- (l) Graduation . . . . . 25.00

**6. FEES FOR AUDITORS**

- (a) Under age 65, per fee unit - undergraduate . . . . . 47.00  
- graduate . . . . . 100.00
- (b) Age 65 or over, per fee unit - undergraduate . . . . . 16.00  
- graduate . . . . . 33.00

**7. MISCELLANEOUS FEES**

- (a) Preliminary application for admission . . . . . 10.00
- (b) Document evaluation . . . . . 35.00
- (c) Late registration . . . . . 35.00
- (d) Returned cheque . . . . . 10.00
- (e) Reinstatement 10% of unpaid account (minimum \$25; maximum \$75)
- (f) Supplemental examination - per paper - on campus . . . 35.00  
- off campus . . . . . 45.00
- (g) Transcripts, per request - first copy . . . . . 4.00  
- additional copies, each . . . . . 1.00
- (h) Education Deduction and Tuition Certificate replacements and fee payment confirmations . . . . . 4.00
- (i) Calendar mailing charge - outside Canada . . . . . 6.00  
- inside Canada . . . . . 4.00
- (j) Language 11 Equivalency Test . . . . . 94.00

**8. REFUNDS FOR DROPPED COURSES, WITHDRAWAL, CANCELLATION OF REGISTRATION AND CHANGE OF STATUS**

- (a) To obtain refunds of fees, students must submit written notice of changes in registration to Records Services or Graduate Records when they take place. Where refunds are granted, they are based on the officially recorded date of drop, withdrawal, cancellation of registration or change.
- (b) Refund deadlines are different from academic drop deadlines.
- (c) Tuition fee refunds — undergraduate programs  
First term courses and first half of full year courses
  - On or before September 21 . . . . . 100%
  - October 12 . . . . . 50%
 Second term courses and second half of full year courses
  - On or before January 20 . . . . . 100%
  - February 10 . . . . . 50%
- (d) Tuition fee refunds — graduate programs  
First term assessments and first half of sessional assessments
  - On or before September 21 . . . . . 100%
  - October 12 . . . . . 50%
 Second term assessments and second half of sessional assessments
  - On or before January 20 . . . . . 100%
  - February 10 . . . . . 50%
- (e) One half of Athletics/Recreation and Student Society fees is refunded to students withdrawing by October 12 or February 10.

**9. GENERAL FEE REGULATIONS**

- (a) The University reserves the right to change fees without notice.
- (b) Students registering in Summer Studies should consult the Summer Studies Calendar Supplement.
- (c) Proceeds of undergraduate awards received or granted by the University are credited to fee accounts.
- (d) Payments and other credits in excess of sessional fee charges are applied to other unpaid accounts. Any remaining credit balance is refunded on request.

**ACADEMIC SERVICES****LIBRARY**

The McPherson Library of the University of Victoria contains over one million volumes, over one and a half million items in microform, and more than 30,000 records and tapes. The Curriculum Laboratory has a specialized collection of over 30,000 volumes and other materials

to support student teaching requirements in the Faculty of Education. The Law Library contains over 100,000 volumes to support the instructional and research requirements of the Faculty of Law; these resources are available to others needing access to legal materials.

With the exception of its Special Collections of rare books and manuscripts, all resources of the McPherson Library are housed in open

stacks, to which there is full public access. Special facilities are provided for the use of audio visual and microform materials. Experienced staff are available and willing to assist students and others to take fullest advantage of the Library's resources, including individual or group instruction in use of a research library.

## ACADEMIC ADVISING

Each of the undergraduate faculties provides an academic advising service for students contemplating enrollment in programs offered at the undergraduate level. The Advising Centre of the Faculty of Arts and Science is located in room A117 in the Clearihue Building. The Advising Centre of the Faculty of Education is located in room 250, MacLaurin Building. Students in the Faculty of Fine Arts are referred to the Office of the Dean of the Faculty, room 192, MacLaurin Building, for information regarding academic advice. Students in the Faculty of Human and Social Development are referred to the individual schools.

## SPECIAL COURSE IN ENGLISH AS A SECOND LANGUAGE

The Department of Linguistics offers a noncredit course in English for students whose native language is not English. For details see Linguistics 099 on page 100 of the Calendar.

## COMPUTING FACILITIES AT THE UNIVERSITY OF VICTORIA

The University of Victoria offers an extensive range of computing services for students and faculty members. The main computing facility is located in the Clearihue Building and includes an IBM 3083BX, two SUN 3/280 systems, a Pyramid 90x and a DEC VAX 11/780. Access to these systems is provided by time sharing terminals distributed throughout the campus utilizing broadband and ethernet communication facilities. Also, the computers are connected to the NETNORTH, DATAPAC, and UUCP networks, which allows access to the computers from many

parts of the world.

Interactive and batch software services are supported on the IBM machine by the VM/SP CMS and OS/VSI operating systems. Programming languages in common use include APL, COBOL, FORTRAN, PASCAL, SNOBOL4, and PL/I. Special purpose software includes the ADABAS, ADRS, BMDP, DI-3000, GDDM, KERMIT, MARKIV, MEGACALC, Minitab, NAGLIB, Natural, SAS, SAS/GRAPH, SCRIPT, SIR/DBMS, SPSS-X, and TSP packages.

The UNIX operating system is used on the SUNs, DEC and Pyramid machines. Programming languages include APL, C, CPROLOG, FORTRAN, LISP, Modula-2, and PASCAL. Special purpose software includes the ditroff, ean, ingres, macsyma, matlab, TEX, and Writer's Workbench packages.

Other facilities include classrooms equipped with IBM and Apple microcomputers and with computer terminals.

Computing & Systems Services offers a wide range of training, support, and consultation services for the IBM 3083, and the IBM Personal Computer (PC) systems to members of faculty and to graduate students. Further information regarding these services is available from the Computing User Services Consultant, in Clearihue D024a.

Except for scheduled maintenance periods, the IBM, Pyramid, SUN and DEC computers operate on a 24 hour basis, to allow access to services whenever required.

Undergraduate and graduate students use the computer to complete assignments in many different courses. Research users include faculty members from nearly all academic departments at the University. New applications in computing are continually being developed for teaching and research purposes, and a major objective of Computing & Systems Services is to provide adequate support for the computing requirements of academic programs. Also, for many years, computing services have been provided to the community at large with the emphasis being placed on scientific and educational applications.

In addition, Computing Services also supports the information handling requirements of the McPherson Library, Accounting Services, and Admission and Records Services. These and other administrative departments make regular use of computing facilities for Library administration, circulation controls, payroll, budgets, accounts payable, and student records.

## STUDENT SERVICES

### COUNSELLING SERVICES

#### A Student Service:

The purpose of Counselling Services is to help students to gain the maximum in education, development and satisfaction from their years at University. This may involve clarifying career goals, solidifying educational plans, developing better learning and studying skills, solving personal and interpersonal problems, or developing greater self confidence and a more balanced life style.

#### Education and Career Counselling

Many students are unsure of their educational and career goals. Some do not know what they want to major in or to what careers a given major might lead. Others find it difficult to choose between several majors or possible careers and do not know how and where to find reliable information about different occupations, careers, or educational paths. Counsellors see such students individually or in groups and use various techniques, materials, and tests to help them clarify their interests, abilities, needs, and personal characteristics. Then they teach the individuals how to locate those occupations that best match them and their goals. The emphasis is on assisting individuals to discover their unique potential and then plotting a career path.

#### Counselling for Study and Learning:

It is normal for difficulties to arise in response to the more demanding and varied learning tasks required in a university. Strategies of learning which were successful in high school may not work very well in a university. Individual counselling is provided to assist students to develop and refine their ways of learning, as well as to manage the difficulties that arise in adjusting to university demands — difficulties such as inadequate retention, inefficient reading, exam anxiety, poor time management, procrastination, inability to concentrate, and so on. It is recommended that students enroll in one of the courses shown below in order to prevent academic problems rather than have to correct them later, when under pressure.

*University Learning Skills Course* — This short, noncredit course is

offered in September and January. It is designed to help students develop better techniques for reading, for listening, for organizing and learning material, and for writing essays and exams.

*Study Groups* — These will be organized, on invitation, for particular subjects or courses. Students will be shown how to use group study to enhance learning.

*Workshops* — A number of workshops are offered on Time Management, Reading Efficiency, Exam Writing, Note Making, and Essay Writing (see below).

*Special Learning Skills Course for New Students* — This special version of the University Learning Skills course will be offered in the two weeks prior to fall registration. It will help new and mature students to cope with the university kind of learning.

#### Personal Counselling:

Professional Counselling Psychologists provide a confidential atmosphere in which students can explore any topic or situation and discuss any concerns they may have. Some of the personal problems which students bring to Counselling Services are shyness, lack of self confidence, difficulty communicating with and relating to others, inability to speak up and express themselves, family and relationship conflicts, loneliness, sexual concerns, depressions, anxiety, stress, alcohol and drug concerns, loss of interest and feeling "fed-up", questions about aptitudes, difficulty in making decisions and coping with the university experience. Students are helped to sort out their problems, to develop self awareness, to overcome problems by using new coping strategies, and to evolve a personally satisfying philosophy of life.

#### Group Programs:

In addition to individual counselling, counsellors offer a number of group programs. Students may arrange to join a particular group by contacting the Counselling Services.

*Career Testing and Planning* — A four session group program to assist students in exploring career options and making realistic plans.

*P.C. Directions* — A computer assisted means of matching one's characteristics and preferences to over 800 occupations.

**Class Participation/Public Speaking** — To help students develop presentation, seminar skills and self confidence in the classroom.

**Essay Writing** — A three session workshop with individual follow up dealing with the steps in writing essays and reports.

**Exam Writing** — A two session workshop highlighting tips for preparing for and writing all types of exams.

**Note Making** — A two session workshop on lecture notes, study cards and SAFMEDS.

**Reading Efficiency** — A two session introduction to effective reading comprehension and remembering.

**Time Management** — A workshop to gain more control of one's time, set goals and priorities, control procrastination and improve performance

**Assertion Training** — A four session program for students who wish to learn and practise standing up for rights, expressing feelings and beliefs, overcoming shyness and taking an active approach to life.

**Improving Self Esteem** — A five session group program for gaining a more positive picture of oneself and building self confidence.

**Eating Disorders** — A six session group program to develop problem solving skills and healthy eating patterns.

**Stress Management** — A four session group program to develop strategies to reduce and prevent stress.

#### Advanced Educational Testing:

Counselling Services is authorized to administer the Scholastic Ability Test and the Achievement Test of the Admissions Testing Program, the Dental Aptitude Test, the Graduate Management Admission Test, the Graduate Record Examinations, the Law School Admission Test, the Medical College Admission Test, the Miller Analogies Test and the Test of English as a Foreign Language.

#### Appointments:

Counselling Services are open and available to all students at the University of Victoria. For further information, students should telephone 721-8341, write or come to Counselling Services, located in the University Centre on the second floor.

## HOUSING AND CONFERENCE SERVICES

#### University Accommodation:

The University offers single and double room accommodation for 1060 students in four residence complexes, Craigdarroch, Gordon Head, Lansdowne and McGill Residences.

A number of living style options are available. Applicants may request to live in single sex or coeducational areas and may choose an environment which has an academic/social balance or an academic emphasis.

For the interested student a variety of programs are offered which encompass academic, recreational, social and personal development.

Residence students take their meals in the Cadboro Commons, centrally located to all of the residence areas. An a la carte meal plan is offered which allows students maximum flexibility in food choices and control over their food budget.

Room and board fees for an average eater in 1987-88 were:

Single: \$3298      Double: \$2923

Please contact the Housing Office for 1988-1989 residence fees.

Applications are available by February 1 from the office of Housing Services, University of Victoria. The application procedure requires completion of the application form and its return with a deposit of \$75.00. Do not wait until you have been admitted to the University to complete this procedure as applications are numbered upon receipt thus establishing the order in which an assignment will be made to you. *Admission to the University does not guarantee a place in residence.*

The \$75.00 will be credited to second term fees. The first term fees are due on or before August 1. If fees are not paid by the due date, the deposit fee is forfeited and the room assignment cancelled.

Assignment of accommodation will commence in June for students who have returned an application together with the application deposit. All assignments are conditional upon the admission of the student to the University. It is the responsibility of the students to inform Housing Services in writing of their status with Admission Services.

Students who have been assigned residence accommodation may occupy their rooms on Monday, September 5. The residence meal pass becomes effective for breakfast on Tuesday, September 6.

Residence accommodation is available prior to September 5. Early arrivals are charged at the Conference Student rate.

Students who are unable to occupy assigned accommodation by September 8, the first day of lectures, must notify Housing Services in writing before that date, otherwise the assignment will be cancelled. Fees will

be assessed from the beginning of the term.

A student wishing to withdraw from residence is required to give four weeks' notice. An administrative charge of \$25.00 will be assessed.

Further particulars regarding University of Victoria student residences may be found in the Residence Handbook which is available from the office of Housing Services, Craigdarroch Office Wing, University of Victoria.

#### Off Campus Housing Registry:

The University maintains a registry of off campus accommodation, in the lobby of the Housing Services Office, Craigdarroch Office Wing. No guarantee can be given that suitable quarters will be found for every student. In offering this free registry service the University does not assume responsibility for agreements made between students and house-holders.

Every effort is made to keep the registry up to date and to offer a range of accommodation, namely, rooms, room and meals, suites, houses, apartments and motels.

Students may avail themselves of this service any time during the year and are urged if at all possible to use the registry during the summer to seek suitable accommodation for the Winter Session.

#### Summer Housing:

Residence accommodation is available throughout the summer months (May-August) for students, families and friends. You are encouraged to spend a few days on campus prior to September opening when you can familiarize yourself with campus, explore the Victoria area and find off campus housing if you are not staying in residence for the academic year. Reservations are not necessary for this 'bed and breakfast' service. Contact Housing Services for rates and further details.

## UNIVERSITY FOOD SERVICES

The University operates a comprehensive food service facility in the Cadboro Commons Building. The Coffee Gardens, including a Salad and Potato Bar, and the Raven's Wing and Pizzeria, are located on the main floor of the building to provide meals and snacks to all members of the University community. The Gold Room, located on the second floor, features an extensive hot and cold luncheon buffet. Residents' meals are served in the Cadboro Commons Dining Room located on the second floor of the building. A full residence food program is provided on an a la carte plan. A similar meal plan designed for economy, flexibility and convenience, is available for nonresident students. Additional cafeteria and dining facilities are located in the University Centre and in the Begbie Building. Supplementary food service is provided by banks of vending machines in the MacLaurin and Elliott Buildings, and by individual machines located throughout the campus. The Department of Food Services provides catering for all occasions and for both on campus and off campus groups. For further information contact Food Services general office, Room 140, Cadboro Commons Block or call 721-8433.

## UNIVERSITY BOOKSTORE

The Bookstore, located in the Campus Service Building, is owned and operated by the University and, in keeping with University policy, operates on a break even basis.

All required and recommended textbooks are stocked by the Bookstore according to faculty requests.

In addition, the general book section contains 15,000 titles in paperback and hardcover editions to provide background reading, reference material for essays and up to date reading of interest. Special orders may be placed for any book currently in print.

#### General Information:

Texts may be returned for refund within 5 business days of purchase. Such books must be in mint condition, unless marked as used when purchased. Students who present their course drop sheet may be granted a return extension for texts purchased for dropped courses up to one month after the beginning of classes. Last date for extension for fall/full year courses is October 6 and for spring courses February 7. A receipt must accompany each refund request.

In each term return privileges will be suspended as follows: fall/full year courses — October 31, spring courses — February 28, summer courses — July 31. May-June courses — special dates will be posted. General books, accompanied by receipt, may be returned for refund within five days from date of purchase.

Sale books and student outlines may not be returned.

Between April 15 and the last day of registration in September, and between December 1 and 31, the Bookstore buys used textbooks at half the retail price according to a "want list" prepared from faculty requisitions.

The Bookstore Policy Advisory Committee, composed of faculty and student members, will be interested in any comments regarding the store.

The General Merchandise Department offers school and art supplies, gym strip, calculators, lab coats, crested ware, drugstore and gift items, magazines, musical recordings, greeting cards, stationery, games, hosiery, and sporting goods. Returns (with the exception of bathing suits) are accepted with the receipt within five days of purchase. Merchandise must be in original condition and packaging should be unbroken. Additional services are film processing and dry cleaning service and a personal computer outlet.

#### **Sub Post Office:**

A Sub Post Office is located to the right of the Bookstore entrance. Services provide postage, money orders, parcel post and registered mail.

## **HEALTH SERVICES**

The Health Services Building is located at the South East corner of Parking Lot No. 5.

Hours are 8:30 a.m. - 4:30 p.m., Monday to Friday.

In addition to the medical services required in direct support of various university activities and programs, the Health Services offers general medical treatment, health counselling, nutritional consultations, physiotherapy, dermatology, sports medicine clinics and psychiatric services for the benefit of students. While these services may be utilized by any student, they are offered primarily for the convenience of those students who do not have a regular physician in the Victoria area. Students are responsible for the cost of any such medical services provided, and students not having valid insurance coverage will be billed directly.

All students are required to have medical insurance. Details regarding medical and hospital insurance coverage are available from the Health Services.

#### *Physiotherapy Services*

A physiotherapy clinic is located in the University Health Services building. During both terms of the Winter Session, the clinic is open from 8:30-11:30 a.m. weekdays for immediate care and advice. Summer hours are posted at the clinic.

Treatment by a physiotherapist can be undertaken only after presentation of a written referral from a physician. Physiotherapy treatments can be billed directly to Medical Services Plan of B.C. or Alberta Health Care. Students with coverage under plans other than these will be billed directly.

#### *British Columbia Residents*

British Columbia students are encouraged to join the Medical Services Plan of B.C.

#### *Residents of Other Provinces*

Students from other Provinces are encouraged to continue their Provincial Medical coverage and are to be prepared to produce a medical insurance identification number. All Canadian provincial plans and those of the Yukon and Northwest territories are acceptable to University Health Services but may not be acceptable to private physicians' offices, hospital, laboratories, etc. If you have any other plan the University will bill you and you may then be reimbursed by your medical plan. Please carry your medical insurance number with you when you visit Health Services.

#### *Nonresidents of Canada*

Students who are not residents of Canada are required to produce evidence of adequate sickness and hospital insurance coverage before registration can be considered complete. The rates for 1987-88 were \$42 per month for each student. These rates are subject to yearly change.

#### *Illness Involving Examinations*

Students are referred to the academic regulations governing illness at the time of examination, found on page 16.

## **CHAPLAINS SERVICES**

The Chaplains Services are provided for University students, faculty and staff. This joint ministry is offered on an ecumenical basis with the Chaplains and their associates working as an ecumenical team.

The office and meeting space, located in the University Centre, Room A-206, is open Monday to Friday from 9 a.m. to 4 p.m., for listening and sharing across denominational, faculty, philosophical and cultural lines.

#### **Programs:**

Chaplains Services provides the following special interest programs: Marriage Preparation Program, Student Retreats, Worship Services, Pastoral Counselling, and Biblical, Theological and Value Studies.

## **University Interfaith Chapel:**

The University provides an Interfaith Centre for the purpose of religious celebrations and worship for all faiths. The Chapel also has a meditation room. The Chapel is open from 10:30 a.m. to 4:00 p.m. Monday to Friday while classes are in session.

## **STUDENT FINANCIAL AID SERVICES**

The University operates a Financial Aid services office, located on the second floor of the University Centre, which is open during regular University hours (8:30 a.m. to 4:30 p.m.). Monday through Friday. Students wishing to discuss their financial situation are advised to arrange for an appointment by calling the office at 721-8423, well before they require assistance. A trained staff of financial advisers is available to discuss and advise prospective students about the costs of attending and the potential sources of funds to cover these costs.

Students must take into consideration tuition, books and supplies, food and accommodation, transportation, and day to day living expenses when considering attending a winter session at the University of Victoria. A booklet entitled "Information and Guide to Application" which accompanies the application form for B.C. Student Assistance Program contains a breakdown of costs allowed by the Government for the average student and is helpful in preparing a budget. The booklet, along with application forms and appendices, is available in a kit from the Student Financial Aid Services office. In addition, more specific information is available in several sections on financial aid at the back of this calendar.

If financial assistance is needed to attend, students should know that the following costs were approved by Federal and Provincial student aid agencies for the 1987-88 Academic Year.

#### **Tuition and Student Government Fees**

In 1987-88, the tuition and AMS fees for a student enrolled in 15 units were \$1496 but these fees will vary according to the course load taken and are different for students in Law and Graduate Studies. For specific course costs, consult the preceding section on fees.

#### **Book and Supplies:**

Books and supply costs were allowed at \$305 a year during 1987-88. Students enrolled in courses such as Law, Visual Arts, Music and Theatre may face additional expenses for materials and instruments.

#### **Food and Accommodation:**

In 1987-88, a single student living away from home (that is, living off campus) was allowed a maximum of \$4250 for food and accommodation or approximately \$531 per month.

Single students planning to live on campus can refer to the rate schedule listed earlier in this section under Housing and Conference Services.

Costs for married students and single parents will vary greatly according to their accommodation and the number and age of their children. The booklet for the B.C. Students Assistance Program referred to earlier is particularly helpful in this regard in a section entitled "Calculating Need for Married Students and Single Parents".

#### **Transportation:**

Local transportation to and from classes was allowed at the rate of \$10 per week during 1987-88. Students commuting great distances may request additional costs if justified. Students from outside the Victoria area should include the cost of two return trips between their home and the University by the most economical means when proposing their budget for student financial aid.

#### **Miscellaneous and Exceptional Expenses:**

Students will incur a number of day to day expenses for items such as clothing, laundry, prescription drugs, recreation and entertainment. In addition, some students will have exceptional expenses, either course related (practica, field trips, etc.) or personal (chronic medical problems, support to family, etc.) These expenses should be included in the budget estimates. Students applying for B.C. Student Assistance Program should be sure to provide documentation with respect to any exceptional expense claimed, including B.C. Medical payments. Miscellaneous expenses were allowed at the rate of \$28 per week during 1987-88.

For further details on costs allowed, please read the guide accompanying the B.C. Student Assistance Program carefully.

## **ATHLETICS AND RECREATION SERVICES**

The department of Athletics and Recreation Services at the University of Victoria provides a comprehensive program of sports and recreation for all students, faculty and staff at the University. The McKinnon com-

plex includes a large gymnasium (2300 seats), dance studio, apparatus gymnasium, weight training room, 25 metre L shaped swimming pool, squash courts, fitness testing centre and changing and showering facilities. There are several playing fields, a 3,000 seat stadium, tennis courts, and many miles of different length jogging trails through the woods around the campus, along with the Cadboro Bay Sailing Compound, Lake Cowichan Field Centre and new Elk Lake Rowing Centre.

Recreational Sports Clubs, intramural sport leagues, instructional courses, outdoor and aquatics programs cover a wide range of indoor and outdoor activities.

The Athletics program is provided for full time students at the University and consists of Level I and Level II Sports Programs.

The Level II program provides, to the extent that resources permit, opportunities for students to participate in organized competition with off campus teams in a wide variety of sports in and around southwestern British Columbia. Level II sports include men's and women's basketball, men's and women's soccer and swimming.

The Level I program provides athletically gifted students with high quality coaching and high levels of competition so that they can develop their athletic abilities to the fullest while pursuing their studies at the University. Sports offered includes men's and women's basketball, men's and women's cross-country/middle distance, women's field hockey, men's and women's rowing, rugby, men's soccer and men's and women's volleyball.

The University of Victoria is a member of the Canadian Inter-university Athletic Union competing in the Canada West University Athletic Association conference.

## DAY CARE CENTRES

Three cooperative day care centres for students, staff or faculty with pre-school-age children are located on the campus. These centres are licensed to take children between the ages of 18 months and five years. A fourth centre located in Hut W is licensed to provide care for children aged 6-12 years in an after school and school closure program. The Provincial government pays subsidies, based on income, toward the fees of these nonprofit centres which are staffed by trained personnel. If a student is not eligible for government subsidy or when the subsidy does not cover day care costs, the student is then advised to contact the University Student Financial Aid Office on campus if the student cannot meet Day Care expenses. Registration is limited. Application should be made several months in advance of the date day care services are required. Inquiries and applications should be made to the Coordinator, Day Care Services (721-8500).

## STUDENT EMPLOYMENT

The Canada Employment Centre On Campus is the Student Placement Office for the University of Victoria. It is operated by the Canada Employment and Immigration Commission in cooperation with the University as a service to students.

The main functions are:

- providing career information and employment counselling;
- posting information about career employment opportunities;
- posting part time, casual and summer employment opportunities;

- arranging interviews with employers recruiting on campus (including teacher recruitment);
- providing group and individual sessions in resume writing and job interview preparation.

Final year students and recent graduates should be aware that many public and private employers begin recruiting in September, with application deadlines in October. Final year students seeking permanent employment should become frequent visitors of the Student Employment Centre, starting in late September.

A variety of summer job opportunities are also posted as early as September, often with application deadlines in October and early November.

All part time and casual job vacancies are posted as received. Students interested in those opportunities are advised to visit the Centre frequently.

Help and guidance in writing resumes, job applications and handling interviews is available in group and individual sessions. The Centre is open Monday - Friday from 8:00 a.m. to 4:30 p.m.

A variety of student employment information is also displayed on notice boards in Elliott (study wing), MacLaurin, Clearihue (main floor, A wing), Cunningham, Cornett and the Student Union Building.

## CAREER INFORMATION VOCATIONAL COUNSELLING

Career information and vocational counselling may be obtained from the Counselling Services or the Canada Employment Centre on campus which operates a Careers Information Room. Career discussions with alumni members in various occupational fields can be arranged through the Director of the Alumni Association. Students may also wish to contact faculty advisers in their areas of study for advice pertinent to career planning.

## PHYSICAL EDUCATION, ATHLETICS AND RECREATIONAL FACILITIES

Use of the athletics and recreational facilities or participation in the program is open to all students paying the athletics and recreation fee, and to faculty, staff who have purchased an activity card from the Athletics and Recreation Office. Faculty, staff, alumni, and students are also eligible to purchase family membership cards.

The Physical Education, Athletics and Recreational Facilities (P.E.A.R.F.) include two gymnasias, a swimming pool, squash courts, tennis courts, a weight room, and a dance studio, which are all widely used as activity centres. The University also manages Centennial Stadium, which is operated and financed in cooperation with the four core Greater Victoria municipalities and School District 61.

### Student Locker Service:

Free lockers are provided for the use of students in a number of buildings on the campus. Students wishing to acquire a locker may do so on a first come first served basis by placing a lock on the selected locker. Use of such lockers is subject to University policies regarding cleaning and responsibility for damage or loss to the contents.

Gymnasium lockers may be rented annually from the Department of Physical Education, Athletics and Recreational Facilities (P.E.A.R.F.).

## STUDENT AFFAIRS

The Director of Student and Ancillary Services serves as the liaison between Student Societies and the University.

### UNIVERSITY OF VICTORIA STUDENTS' UNION (Alma Mater Society)

All undergraduate students on campus at the University of Victoria are members of the Students' Union (AMS) which functions as the recognized means of communication between the general student membership, the administration, and the community.

The affairs of the UVic Students' Union are directed by fifteen students, who are democratically elected in March, for one year terms. Four

of the directors perform executive functions: the President, Vice President Finance, Vice President Services and the Vice President Academic. Issues affecting student life, such as housing, fees, employment, and postsecondary funding are promoted by the Board of Directors which meets regularly during the winter session.

The Student's Union is headquartered in the Student Union Building, where students operate a wide range of services and programs. Operations include three food service outlets, the S.U.B. Pub, Cinecentra Films, the Martlet student newspaper, CFUV Radio, the Graphics Shop, and a Campus Used Bookstore (C.U.B.). The office of the Ombudsperson is located in the S.U.B. Through their Students' Union, students sponsor and participate in clubs, course unions, and publica-

tions such as the Student Handbook, and the Telephone Directory. Dances, concerts, speakers and seminars are regular activities which take place in the S.U.B.

The President of the Students' Union is always available to help students get involved and is eager to voice the concerns of students at every tier of government. As a member of the Canadian Federation of Students, students have representation at the local, provincial and national levels of government. Thus, being an active member of the UVic Students' Union is one of the most important ways of contributing to the future. By participating in the decision making process—whether it be by casting a ballot at election time, or by running for a position on the Board of Directors, Senate, or Board of Governors—students enrich themselves and the entire university environment.

Participating is invited and encouraged.

*President 1987-88: Ms. Pamela Frache*

#### Office of the Ombudsperson, AMS:

Operating out of Room 133 of the Student Union Building, the Ombudsperson functions as an independent, impartial investigator equipped to field student complaints about any department or office on campus. While the office is not empowered to enforce its recommendations, it seeks to ensure that on campus decisions and University regulations are both fair and equitable. The office also acts as an information and referral centre about and to campus operations and services.

All contacts with the Ombudsperson's office are confidential.

The Ombudsperson can be reached at 721-8357 or messages can be left at the AMS general office. Office hours are advertised in the Martlet and posted at various locations around campus.

#### B.C. PIRG:

The AMS Activity Fee also supports the B.C. Public Interest Research Group, located in the SUB. B.C. PIRG engages in student research in topical areas under the direction of its provincial and local boards. Student proposals for research are welcomed and financial assistance with projects is available for supply expenses.

### GRADUATE STUDENTS' SOCIETY

The Graduate Students' Society was officially recognized by the Senate of the University of Victoria in the fall of 1966, shortly after the establishment of graduate studies. Through the Executive Council of the Society, it represents the graduate students to the University and the community.

The five members of the Executive of the Society are elected for one year terms by the members of the Society. Executive members may be elected in October or April. Any graduate student registered at the University of Victoria, whether part time or full time, is eligible to vote in Society elections, to hold office in the Executive Council, and to represent the Society on University and Senate committees.

The Functions of this Society are: (a) to represent the graduate student body in all matters pertaining to the welfare of it as a unit or any of the individuals comprising that body, (b) to represent the academic, teaching and research assistants in communication with the faculty and administration, (c) to act as a liaison between the graduate student body and the faculty and administration, (d) to promote intellectual, social and recreational activities among graduate students, (e) to provide a communication link with the Alma Mater Society of the University and with graduate students from other universities, and (f) to assist incoming

graduate students who are experiencing language or accommodation difficulties.

The Society is funded by fees collected at registration by the University for the Society (see page 20). These funds are used to pay the costs of preparing Library/G.S.S. identification cards for graduate students as well as to support the regular functions of the Society, the building fund and athletics and recreation.

Graduate students with ideas, projects, financial difficulties or other problems are urged to contact any member of the Executive for assistance. Executive members may be contacted through the Faculty of Graduate Studies or directly in the G.S.S. offices in the S.U.B.

The Society administers a travel fund to assist graduate students wishing to attend professional meetings and conferences. For information, contact the President of the Society.

*President 1986-87: Mr. Khash Dehghan*

### GENERAL CONDUCT

The University authorities do not assume responsibilities which naturally rest with parents. This being so, it is policy to rely on the good sense of students for the preservation of good moral standards and for appropriate modes of behaviour and dress.

### HAZING

The University prohibits hazing.

The attention of students is called to this resolution of the Alma Mater Society:

*The Student's Council shares the concern of the University over hazing during Frosh Week. We wish to point out that any form of hazing is forbidden by University regulation. With the advent of residences and the ensuing growth of the University, this form of conduct has become archaic and will no longer be tolerated. Any behaviour which exceeds the bounds of good taste and common sense will result in disciplinary action by the Student's Council.*

### CANADIAN ARMED FORCES SUBSIDIZATION PLANS

The Department of National Defence sponsors programs of university education and leadership training for selected young men and women who have the potential to become officers in the Canadian Armed Forces.

The programs sponsored are the Regular Officer Training Plan (ROTP), Medical Officer Training Plan (MOTP)/Dental Officer Training Plan (DOTP). Training given under these plans is divided into two parts: normal attendance at university throughout the academic year and military training each summer.

Individuals interested in obtaining more information on, or wishing to make application for, any of these plans are requested to contact:

Detachment Commander  
Canadian Forces Recruiting Centre Detachment  
614 Yates Street  
Victoria, B.C. V8W 1K9  
Tel. (604) 388-3717

### ALUMNI ASSOCIATION

The Alumni Association is an organization composed primarily of University of Victoria graduates. It seeks to support the University and to represent the views of graduates within the University community. In addition to graduates, automatic members of the Association by virtue of their being on the Convocation Roll include: the Chancellor, the President of the University, members of the Board of Governors and the Senate, all faculty members, some members of Victoria College as well as others on the roll, such as emeritus faculty, some University employees and members of the community.

The Association is governed by an Executive elected and appointed annually.

Policies and programs are developed by the Executive and are implemented by the Association's staff in close cooperation with the University's administration. Funding for Alumni Association programs in support of the University and its students is made available through an annual fund drive and other fund raising projects. The Association membership is informed of activities through mailings and through the Association's publication, "The Torch".

The Alumni Association office is located on campus. Telephone number: 721-7635.

*President 1987-88: Ray Williston*

## UNIVERSITY PUBLICATIONS

Besides this Calendar and the publications mentioned on the inside front cover, the following are designated as authorized University publications:

### *Malahat Review*

An international quarterly of life and letters edited by Constance M. Rooke, B.A., M.A., Ph.D. Subscription: \$15.00 for one year; \$40.00 for three years (overseas, \$20.00 and \$50.00, respectively).

### *The Ring*

A news tabloid published biweekly and edited by Donna Danylchuk. Circulated on campus free of charge.

### Canadian Bilingual Dictionary Project:

The University is currently preparing a revised and enlarged edition of *The Canadian Dictionary/Dictionnaire Canadien*, published in 1962. Project Director: Professor H.J. Warkentyne, Department of Linguistics.

## DIVISION OF UNIVERSITY EXTENSION AND COMMUNITY RELATIONS

The purpose of the Division is to work with all faculties to plan and offer programs described below.

### Credit Courses and Programs Offered Off Campus, Evening Credit Courses Offered On Campus and Courses Offered in the Summer Studies Period.

The announcement of the courses to be offered on and off campus in the Summer Studies period will be issued in February. Information about on campus evening courses and off campus courses starting in September, will be available in June. Contact the Division of University Extension and Community Relations, and/or Admission Services or Records Services at the University.

Academic rules and regulations published in this Calendar, except as described in any Program Supplement to the Calendar, apply to students taking courses under this section.

The University reserves the right to cancel courses when enrollment is not sufficient and to establish special regulations for admission to nondegree programs or courses.

Selection of courses must be made in keeping with Calendar prescriptions for the degree program involved. Students seeking academic advice regarding degree programs should consult the appropriate academic advising centre. Inquiries should be directed to one of the following:

Advising Centre — Faculty of Arts and Science, Room A117, Clearihue Building. Telephone: 721-7566.

Advising Centre — Faculty of Education, Room 250, MacLaurin Building. Telephone: 721-7877.

Students in the Faculty of Fine Arts or the Faculty of Human and Social Development should contact the specific department or school.

Regulations governing application and registration procedures and fees are detailed in the appropriate Supplement.

### Professional Development Programs:

These programs are planned to meet the specific continuing education

needs of persons working in the professions. Courses and workshops are offered throughout the Province in cooperation with regional colleges and professional organizations. The primary emphasis of the University's offerings is on programs for persons working in the areas of Education, Social Work, Nursing, Child Care, Computer Science, Public Administration, and Cultural Conservation. Programs for professionals in some of these areas are also offered in cooperation with the Open University Consortium of British Columbia.

### Distance Education:

University Extension and Community Relations offers credit courses and professional development and community education programs which permit students throughout the province to study on a part time basis at home. Programs use a variety of instructional delivery methods including Knowledge Network television broadcasts, video tapes, audio cassettes, computer assisted instruction, audio conferencing and print. Regular telephone contact with the instructor is an important component of all distance education courses. The University of Victoria is a member of the Open University Consortium of British Columbia.

### Community Education Programs:

The nondegree program utilizes a variety of educational formats, such as courses, lecture series, workshops, conferences, residential seminars, and symposia. The curriculum is developed in cooperation with departments from all faculties of the University.

Areas include: Programs for Women; Seniors; Humanities; Business and Management; Science; Adult Education; Liberal Studies; Fine Arts; Health Sciences; Languages. Additional courses are developed as needs arise and academic resources permit.

For further information on any of the above programs please call or write the Division of University Extension and Community Relations, University of Victoria, P.O. Box 1700, Victoria, B.C. V8W 2Y2. Telephone 721-8451.

## PREPROFESSIONAL EDUCATION

The material which follows is only a *guide* to professional education at other universities, and students must not assume that completion of these courses will grant them automatic admission. Students who are seeking advice about professional education should consult the Arts and Science Advising Centre, University of Victoria, where specific information on prerequisites may be obtained. Students who plan to undertake professional studies at other Canadian or American universities are urged to correspond with the universities of their choice prior to their first year at the University of Victoria.

**Please note that course programs for First Year students only are outlined, although it may be possible to complete one or more additional years of study at the University of Victoria.**

### AGRICULTURE

Suggested courses:

Biology  
Chemistry  
English  
Mathematics  
Physics or Economics

### ARCHITECTURE

Suggested courses:

Art  
English  
Mathematics  
History in Art  
Physics  
Social Sciences

### APPLIED SCIENCE

Suggested courses:

English  
Mathematics  
Chemistry  
Physics  
Elective

### CHIROPRACTIC

Suggested courses:

Completion of two years in Arts and Science, the first year of which to include the following:  
Biology  
Chemistry  
Mathematics  
Physics  
Psychology

### COMMERCE AND BUSINESS ADMINISTRATION

Students interested in Commerce and Business Administration are advised to consult the Head of the Department of Economics, University of Victoria.

Suggested courses: First Year Arts and Science or its equivalent with standing in 15 units (including Economics, English and Mathematics).

**DENTISTRY**

Completion of at least three years of study on a degree program in Arts and Science including English, Mathematics, Chemistry, Biology, Physics, Biochemistry.

**FORESTRY**

Suggested courses:

Biology  
Chemistry  
English  
Mathematics  
Physics

**HOME ECONOMICS**

Suggested courses:

Chemistry  
English  
Physics (Human Nutrition)  
Mathematics  
Biology  
Social Science (Family Sciences)

**MEDICINE**

Completion of at least three years of study on a degree program in Arts and Science including:

English  
Mathematics  
Chemistry  
Biology  
Physics  
Biochemistry

**OPTOMETRY**

Completion of two years in Arts and Science, the first year of which to include the following:

Biology  
Chemistry  
Mathematics  
Physics  
Psychology

**PHARMACY**

Suggested courses:

Chemistry  
English  
Mathematics  
Physics or Biology  
Elective

**REHABILITATION MEDICINE**

Suggested courses:

English  
Mathematics  
Chemistry  
Biology  
Psychology

**PSYCHOLOGY**

Students wishing to enter a professional school of psychology are advised to complete the B.A. Honours or B.Sc. Honours program in the Department of Psychology, University of Victoria.

**SPEECH AND HEARING SCIENCE**

Students intending to pursue studies in the Speech and Hearing Sciences after graduation are advised to consult the Department of Linguistics about Bachelor of Science in Linguistics, which offers suitable preparation for this area of study.

**VETERINARY MEDICINE**

Completion of two years in Arts and Science including:

English  
Physics  
Biochemistry  
Biology, including Genetics  
Chemistry, including Organic Chemistry  
Mathematics  
Microbiology

Electives: a course in Statistics is recommended and may be applied towards the mathematics requirement.

**FILM STUDIES**

Although the University does not presently offer a major in film studies, there is a wide variety of courses taught on this campus dealing with the subject of film. Students interested in film and wishing to develop their knowledge of this subject may take some or all of the following

courses: ENGL 405, 414, 415, FREN 483, GER 433, RUSS 304 (Faculty of Arts and Science); ED-B 463 (Faculty of Education); CW 312, HA 295, 363, 364, 365, 366, 367 (Faculty of Fine Arts).

# COOPERATIVE EDUCATION PROGRAMS

## THE "COOPERATIVE" CONCEPT

Cooperative Education can be described as a process of education which formally integrates the students' academic and career studies on campus with relevant and productive work experience in industry, business, and government.

The accumulation of up to two years of varied and program related work experience enhances the students' intellectual, professional, and personal development, by providing opportunities for applying academic theories and knowledge, evaluating and adjusting career directions, and developing confidence and skills in working with people.

## COOPERATIVE EDUCATION PROGRAMS OFFERED

Cooperative Education Programs are currently offered in the Faculty of Arts and Science (Biology, Chemistry, Computer Science, Geography, Mathematics, Physics), the Faculty of Education: (School of Physical Education: Leisure Studies Major), the Faculty of Engineering (Computer Engineering, Electrical Engineering, Mechanical Engineering), the Faculty of Fine Arts (Creative Writing), the Faculty of Human and Social Development (Health Information Science), and the Faculty of Graduate Studies (Economics, Education Administration, Public Administration, and other graduate areas on an individually negotiated basis. An Arts Cooperative Education Program is available to students in selected Humanities and Fine Arts programs. See entries under Faculty of Arts and Science and Faculty of Fine Arts.

## ADMISSION

Admission and graduation requirements for Cooperative Education Programs are determined by the individual departments. Consult the calendar entries in these areas for further information.

Students must apply to the appropriate department for admission to the Coop Program. In general, Coop students are required to achieve an above-average academic standing, and to demonstrate the motivation and potential to pursue a professional career.

## WORK TERMS

As an integral component of Cooperative Education Programs, students are employed for a number of work terms, which are arranged and evaluated by the individual departments. For undergraduate programs, a minimum of four work terms is required (individual departments may require more).

Work terms, normally of four months duration (13 weeks minimum), begin in January, May, and September. Work terms generally alternate with academic terms on campus, and provide productive and paid work experience which is related to the student's program of studies and individual interests.

## WORK TERM CREDIT BY CHALLENGE

Certain Coop Programs allow students to challenge their first work term on the basis of prior, relevant work experience. Students should discuss any potential challenge with the Coop Coordinator for their program. Not all programs permit Work Term Challenge; where it is permitted, it is subject to the following regulations.

1. A formal application to challenge a work term is required prior to undertaking the first scheduled work term.
2. Application forms for Work Term Challenge may be obtained from the Records Office, and must be submitted to the appropriate Coop Program for approval to challenge, after which the Challenge fee is assessed.
3. Work term credit by Challenge is limited to a maximum of one work term; exceptions require the approval of the Director of Cooperative Education Programs.
4. Assessment of Work Term Challenge will be carried out by the appropriate Coop Program, based on the following:
  - (a) a minimum of one year of continuous, directly relevant work experience;

- (b) written confirmation of employment and evaluation of performance from the employer;
  - (c) comprehensive outline by the student of the prior work experience, providing evidence that the student has acquired appropriate professional and personal knowledge and skills;
  - (d) A work report appropriate to the discipline.
5. Once the assessment has been administered, the result will be entered on the student's academic record.

## GENERAL REGULATIONS

1. Students must register for each work term by completing the Work Term Registration form, which is provided by the Coop Coordinator and which is normally completed when the student accepts an offer of work term employment and must be completed prior to start date. Once registered, students are not permitted to withdraw from the work term without penalty of failure, unless specific written permission has been granted by the department.
2. Each work term is evaluated on the basis of the student's performance of assigned work term tasks and a written work term report. The work term period and evaluation (grading: COM, F, or N) are recorded on the student's official academic record, as well as on the official Record of Work Terms, which is attached to the academic record and which also includes work term details (employer, title of report, and position title).
3. A failed work term will normally result in the student being required to withdraw from the Coop Program, subject to review by the department.
4. A Coop Program fee, which is nonrefundable, is assessed in the first month of each work term and is subject to the Fees regulations (p. 19.).
5. In the undergraduate programs, students are required to complete satisfactorily at least four work terms (individual departments may require more). After admission to the program, students are required to register for all scheduled work terms, except for the work term offered by some programs in the summer at the end of first year.
6. Work term reports are normally due for submission to the department during the first month following each work term, at a time established by the department, and are evaluated by the department, and, in some cases, the employer.
7. In the event of a work stoppage within the first nine weeks of a work term, an attempt will be made to arrange an alternative work placement, to enable the student to complete the work term. If the work stoppage occurs after nine weeks, the work term will be accepted for credit providing all other work term requirements are met.
8. The transferability of work terms from other institutions which offer Coop programs is determined by individual Coop departments on the merits of each completed work term. The number of work terms accepted for transfer must be less than 50% of the total number required for completion of the Coop Program.
9. Students who are taking double or combined major degrees (where each area offers a Coop program) may, if eligible, enroll in and undertake work terms in both Coop programs. Students who complete at least two work terms in each area will have the combined nature of their program noted as part of the Coop designation on their official records.
10. To graduate from a Cooperative Education Program, students must complete satisfactorily the minimum number of work terms and maintain the academic standing required by individual departments. Students who elect to graduate before or during the completion of a work term, will not have that work term recorded for credit, and, consequently, may not graduate with the Coop designation.
11. Students registered for work terms are considered to be enrolled in a full time course of studies and may not take university level credit courses without the permission of the department.
12. Students enrolled in Coop programs may be allowed to complete a 3 unit course commencing in September over a 16 or 20 month period, provided the department concerned consents. Students must obtain written permission from the department involved when registering in the course. In such cases, a temporary grade of CIC (Coop Interrupted Course) will be entered into the student's December transcript.

# FACULTY OF ARTS AND SCIENCE

Edward I. Berry, A.B. (Wesleyan), M.A., Ph.D. (Calif., Berkley), Dean of the Faculty and Dean of Humanities  
 Louis D. Costa, A.B. (C.C.N.Y.), M.A., Ph.D. (Columbia), Dean of Social Sciences  
 Alistair T. Matheson, B.A., M.Sc. (Brit. Col.), Ph.D. (Tor.), F.R.S.C., Dean of Science  
 Frank P. Robinson, A.B. (Fisk), Ph.D. (Alta.), Assistant Dean and Director of Academic Advising  
 Garry R. Charlton, B.A. (U. of Vic.), Advising Officer  
 Peter G. Liddell, M.A. (Edin.), Ph.D. (Brit. Col.), Academic Director, Language Centre  
 Marjorie L. Menhennet, B.A. (Wellesley Coll.), M.A. (Calif. Berkeley), Advising Officer  
 Reidun Anderssen, Senior Academic Assistant, Language Centre

## DEGREES AND DIPLOMAS OFFERED

The degrees offered in this Faculty are Bachelor of Arts (B.A.) and Bachelor of Science (B.Sc.). The diplomas offered are Diploma in Applied Linguistics and Diploma in Humanities.

## ACADEMIC ADVICE

**Academic Advising Centre:** Academic advice for the Faculty of Arts and Science is available through the Arts and Science Advising Centre, A117 Clearihue Building. Students seeking information or advice regarding programs, courses, or University and Faculty regulations are invited to visit the Centre, or write to the Director. Appointments with an Adviser may be made by telephoning 721-7566.

**Departmental Advising:** All academic Departments have Advisers generally available throughout the Winter Session who can give detailed information regarding courses and programs within each discipline. Students wishing advice from Departmental Advisers during the summer months should write or telephone the department for an appointment. Students transferring into the Faculty of Arts and Science from a professional program should consult the Department in whose discipline they plan to Major regarding their previous credit.

**Faculty of Education Advising:** Students in the Faculty of Arts and Science who wish to enter the Faculty of Education at a later date are advised to consult the Education Advising Centre, Room 250, MacLaurin Building, before they begin their studies in Arts and Science.

## PROGRAM PLANNING

It is recommended that all students discuss their proposed programs with the Arts and Science Advising Centre and/or with Departmental Advisers well in advance of registration.

Students who may wish to transfer to another university to complete their degree are advised also to consult the university of their choice regarding required courses and transfer equivalencies.

**Course Planning Form:** First year students entering the University of Victoria will be asked to complete a Course Planning Form, listing their proposed courses for the session, and to send it to the Arts and Science Advising Centre for approval. A copy of the approved form will then be returned to the student. Completion of the Course Planning Form will facilitate the registration process.

**Record of Degree Program:** All students in the Faculty of Arts and Science are required to declare a degree program by completing a Record of Degree Program form in consultation with the Arts and Science Advising Centre, preferably near the beginning of their third year of studies, and, in any event, not later than the second term of that year. The purpose of this form is to ensure that proposed courses will meet the requirements for the degree program selected. A copy of the form is placed on file in the Records Office to be used as a record for graduating purposes.

**Limitation of Enrollment:** In certain programs of study, it may not be possible to accommodate all those seeking entry. Consequently, even though applicants may be admissible to the University, the Faculty of Arts and Science may not find it possible to allow the students entry into the program of their first choice. In addition to enrollment limitations, it may be necessary to limit registration in individual courses.

## REQUIREMENTS COMMON TO ALL BACHELOR'S DEGREES IN ARTS AND SCIENCE

Each candidate for a bachelor's degree is required:

- to have satisfied the University English Requirement (see page 12);
- to include in the first 15 units presented for the degree not more than 9 units from any single department, and at least 3 units from each of two other departments;
- to include in the next 15 units presented for the degree not more than 12 units from any single department, and at least 3 units from one other department;
- to include in the remaining units presented for the degree at least 21 units of courses numbered at the 300 or 400 level (this is a general University requirement);
- to present credit in a minimum of 60 units of university level courses numbered 100 and above; at least 30 of these 60 units must normally be completed at this University (these are general University requirements; also see Credit by Course Challenge, page 15);
- to present at least 33 units (of the minimum 60 units required for a degree) of courses from *one* of the two following lists, thereby determining the degree requested:

### Bachelor of Arts

Anthropology  
 Classics  
 Economics  
 English  
 Environmental Studies  
 French Language and Literature  
 Geography  
 Germanic Studies  
 Hispanic and Italian Studies  
 History  
 Liberal Studies  
 Linguistics  
 Mathematics  
 Pacific and Asian Studies  
 Philosophy  
 Political Science  
 Psychology  
 Slavonic Studies  
 Sociology

### Bachelor of Science

Biochemistry and Microbiology  
 Biology  
 Chemistry  
 Computer Science  
 Economics  
 Geography  
 Linguistics (certain courses only, see Note, page 100)  
 Mathematics  
 Physics  
 Psychology

- to meet the requirements for the degree program selected; see below, and under the individual departments, pages 33 to 139.

## DEGREE PROGRAMS LEADING TO THE B.A. AND THE B.Sc.

A student may proceed to either the B.A. or the B.Sc. degree, normally in one of three Programs: Honours, Major, or General (but see section on Joint Honours and Major, below). In most cases, by choosing courses carefully and consulting departmental requirements and prerequisites, students may postpone until the end of the Second Year the decision as to which program to select.

## THE HONOURS PROGRAM

The Honours Program requires specialization in a single field in the last two or three years and is intended for students of above average ability. Students who plan to undertake graduate work are strongly advised to follow an Honours Program.

### Admission to an Honours Program

Students planning to proceed in an Honours Program must consult the Chairman of the Department concerned, or his nominee, as early as possible in their academic career, and in any case, must obtain the consent of the department concerned to enter its Honours Program. This consent will normally be given only if:

- the department offers an Honours Program;
- the student has fulfilled the requirements of the first two years and has a grade point average of at least 3.50 in the work of the Second

Year and in the field in which the student wishes to specialize; and (c) the student has completed all prerequisite courses.

The department concerned must annually renew its permission for a student to continue on an Honours Program. If, in the opinion of the department, the student's work at any time is not of Honours standard, the student may be permitted to transfer to a Major or General program.

#### Requirements of the Honours Program

The number of units required for an Honours Program varies between 60 and 66, depending upon the requirements of the department concerned, which are set out on pages 33 to 139 of this Calendar, and which must be satisfied along with the requirements common to all degrees in the Faculty of Arts and Science, set out above.

A candidate for Honours may be required to present a graduating essay, to pursue a program of directed studies, or to participate in an Honours seminar. The final date for submitting graduating essays or research reports to the departments in the second term is left to the discretion of the department concerned.

A candidate for Honours may be required at the end of the final year to take a comprehensive examination — oral, written, or both.

*Normally a student should complete the requirements for an Honours Program in four academic years. Students who are planning to complete a degree on a part time basis and who wish to be considered candidates for honours should explore the options with the department concerned. Requests for extensions should be made through the department concerned to the Dean's office.*

Honours degrees are of two classes: First and Second. Consult the entry of the department concerned for its requirements for each class of Honours degree. Students who pass their courses but fail to obtain at least Second Class (normally, a graduating average of 3.50 minimum) may, upon the recommendation of the department, be granted appropriate standing in a Major or General program. See Graduation Standing, page 31.

#### Honours Programs Leading to the B.A. or the B.Sc. Degree

A student may proceed to the B.A. or the B.Sc. degree in an Honours Program in one of the following:

##### Bachelor of Arts

Anthropology  
Applied Linguistics  
Classics  
Economics  
English  
French  
Geography  
German  
Greek  
Hispanic Studies  
History  
Latin  
Linguistics  
Mathematics  
Philosophy  
Political Science  
Psychology  
Sociology

##### Bachelor of Science

Astronomy  
Biochemistry  
Biology  
Chemistry  
Combined Chemistry  
and Mathematics  
Combined Computer Science  
and Mathematics  
Computer Science  
Economics  
Geography  
Linguistics  
Mathematics  
Microbiology  
Physics  
Physics and Mathematics  
Psychology

**Combined Honours:** Offered in Chemistry/Mathematics; Computer Science/Mathematics. See pages 50, 58 and 105 for details.

**Double Honours:** With the joint approval of the departments concerned, a student may be permitted to meet the requirements for an Honours Program in each of two departments, both leading to the same degree, a B.A. or a B.Sc. Such a program may require an extra year of study, in which case approval of the Dean should be sought.\*

**Joint Honours and Major Programs:** Where it is possible to do so within the period of four academic years required for Honours Programs, a student may elect to complete an Honours Program in one area of study together with a Major Program in another area of study, both leading to the same degree, a B.A. or B.Sc.\*

Alternatively, a student may, with permission from the Dean, arrange for a Joint Honours and Major Program which will involve satisfying the Honours requirements and the Major requirements of two disciplines within the Faculty of Arts and Science, one of which leads to the B.Sc. degree while the other leads to the B.A. degree. In such cases, the student will receive either a B.Sc. or a B.A. degree, depending on which is specified by the Honours Program. Details of all such programs must be agreed upon by the student, the representatives of the academic units involved, and the Dean. The signed agreement will be on file in the Records Office.

## THE MAJOR PROGRAM

The Major Program requires some specialization in one field in the last two years, and may permit the student to proceed to graduate study if sufficiently high standing is obtained, or to professional or business careers.

#### Requirements of the Major Program

The Major Program requires:

- the completion of the first 30 units in conformity with the regulations common to all degree programs given above;
- the completion of the remaining units in conformity with the regulations common to all degree programs given above, and including the following:
  - 15 units of courses numbered 300 or 400, selected to meet the requirements of the Major program, as specified by the department concerned;
  - at least 15 units of electives, which may include not more than 9 units prescribed by the Major department as corequisites.

#### Major Programs Leading to the B.A. and B.Sc.

A student may proceed to the B.A. or the B.Sc. degree in a Major program in one of the following:

##### Bachelor of Arts

Anthropology	French	Mathematics
Applied Linguistics	Geography	Philosophy
Classical Studies	German	Political Science
Classics	Hispanic Studies	Psychology
Economics	History	Russian
English	Linguistics	Sociology

##### Bachelor of Science

Astronomy	Geography
Biochemistry	Linguistics
Biology	Mathematics
Chemistry	Microbiology
Computer Science	Physics
Economics	Psychology

In addition, a student may proceed to a B.A. degree in a Major program in one of the following Interdisciplinary Programs:

**B.A. or B.Sc. Major in Environmental Studies:** This is an interdisciplinary program designed to provide students with a concentration of courses in the area of environmental topics. A Major Program leading to the B.A. or the B.Sc. degree is offered, but the Major can only be taken as a Double Major or as a Joint Honours and Major with a second program within the Faculty. For details of the Environmental Studies program, see page 73.

**B.A. with Major in Pacific Studies:** The Pacific Studies program is designed to provide a concentration in the area of Pacific Studies for both educational and professional purposes. Details of the program are given on page 111.

**Combined Major:** A student may elect to complete the requirements for a Combined Major Program leading to a B.A. in English and French (Canadian Literature) or to a B.Sc. in the following areas: Computer Science/Mathematics; Chemistry/Mathematics; Biochemistry/Chemistry; Microbiology/Chemistry; and Physics/Astronomy.

**Double Major:** A student may elect to complete the requirements for each of two Major Programs offered in the Faculty, both leading to the same degree, a B.A. or a B.Sc., except that Biochemistry cannot be combined with Microbiology and Physics cannot be combined with Astronomy for a double major, nor can any Combined Major program be used as a double major with a major program offered by either component department.\*

Students may, with permission of the Dean, arrange for a Double Major B.A. program which will involve satisfying the Major requirements of two disciplines in the Faculty of Arts and Science, one of which normally offers programs leading only to the B.Sc. degree, while the other offers programs leading to the B.A. degree. In such cases, the student will have the option of receiving either a B.A. or a B.Sc. Double Major degree. Details of all such programs must be agreed upon by the student, the representatives of the academic units involved, and the Dean. The signed agreement will be on file in the Records Office.

**Interfaculty Double Honours or Major:** Students may arrange for an Interfaculty Double Honours or Major program through the Arts and Science Advising Centre. Such programs involve satisfying the Honours or Major requirements of two disciplines in two different Faculties. Agreement to details of all such programs must be signed by the students

and by representatives of the academic units involved. Students on the interfaculty program will be subject to the regulations of the Faculty in which they are registered.\*

## THE GENERAL PROGRAM

The General Program may lead to professional careers or to graduate studies, depending upon the level of competence demonstrated therein; its distinctive characteristic, however, is the breadth of the education for which it provides.

### Requirements of the General Program

The General Program requires:

- (a) the completion of the first 30 units in conformity with the regulations common to all degree programs given above;
- (b) completion of the remaining units in conformity with regulations common to all degree programs given above, and including the following:
  1. 9 units taken in courses numbered 300 and above in each of two fields, as may be specified by the departments concerned;
  2. 12 units of electives which may include not more than 6 units prescribed by the departments as corequisites.

### General Programs Leading to the B.A.

#### Option A

A student may proceed to a B.A. degree in a General program in any two of the following:

Anthropology	Italian Studies
Chinese Studies	Japanese Studies
Classics	Linguistics
Economics	Mathematics
English	Pacific Studies
French	Philosophy
Geography	Political Science
German	Psychology
Hispanic Studies	Russian
History	Sociology

#### Option B

A student may also proceed to the B.A. degree in a General program which combines one of the above fields with one of the following:

Biochemistry and Microbiology	Computer Science
Biology	Physics
Chemistry	

#### Option C

A student may also proceed to the B.A. degree in the General program by combining any one of the fields listed in Options A or B with one of the following:

Environmental Studies	Women's Studies
Medieval Studies	

### General Programs Leading to the B.Sc.

A student may proceed to a B.Sc. degree in a General program in any two of the following:

Biochemistry and Microbiology	Geography
Biology	Mathematics
Chemistry	Physics
Computer Science	Psychology

## MINOR

A student who elects to complete the course requirements for an Honours or Major program and, in addition, completes those courses prescribed for one of the fields listed under the General Program, will receive a Minor in that field. The Minor would be added to the student's academic record only if the courses taken for the Minor do not form part of the requirements for the Honours or Major program and only if the student formally declares the Minor Program through the Arts and Science Advising Centre.

\* A student proceeding towards a B.A. or B.Sc. in a Double Honours, Joint Honours and Major, Double Major or Interfaculty Double Major program, shall be entitled to no more than one bachelor's degree upon completion of any of these programs. Students seeking a second bachelor's degree should consult the regulations on page 18 under A Second Bachelor's Degree.

## COOPERATIVE EDUCATION PROGRAMS

Please refer to page 28 of the Calendar for a general description of Cooperative Education.

Admission to and completion of Cooperative Education Programs are governed by individual departmental requirements. In general, students participating in the Cooperative Education Program must maintain at least a second class (3.50) average overall. As a required part of the program, students are employed for specific Work Terms, each with a minimum duration of 13 weeks. This employment is related as closely as possible to the student's course of studies and individual interest.

In addition to the graduation requirements outlined on page 19, a student must have a graduating average of at least 3.50 in order to graduate with the Cooperative Education notation.

Students may withdraw from the Cooperative Education program at any time and may remain enrolled in a Major or Honours program offered by the Department.

Details of the undergraduate programs in Biology, Chemistry, Computer Science, Geography, Linguistics, Mathematics, and Physics are outlined in the departmental sections of the Calendar.

The Arts Cooperative Education Program, offered by the Departments in the Humanities Division of the Faculty, has specific admission requirements and standards in addition to those mentioned above. This program is described on page 36.

## DIPLOMA PROGRAMS

Two diploma programs are offered: the Diploma in Applied Linguistics, offered by the Department of Linguistics (see page 100), and the Diploma in Humanities, offered by the Departments in the Humanities Division of the Faculty (see page 98).

## OTHER INFORMATION REGARDING CREDIT AND COURSES

### CREDIT FOR SUMMER STUDIES COURSES

Credit obtained in May-August courses may be combined with that obtained in Winter Session to complete degree requirements. The maximum credit for May-August work in any one calendar year is 9 units (see Summer Studies entry elsewhere in this Calendar and the Summer Studies Supplement to the Calendar, published in January).

### TIME LIMIT FOR DEGREE COMPLETION

Although the Faculty of Arts and Science imposes no time limit for the completion of a General or Major B.A. or B.Sc., Honours degrees are normally completed within four years. Certain departments, with the approval of Faculty, may impose stated time limits for the completion of Major and General programs in their areas.

### LANGUAGE LABORATORIES

Many courses offered by modern language departments include language laboratories intended to reinforce the learning of basic speech patterns and idioms and to complement the active use of the language in the classroom.

## CREDIT FOR COURSES OFFERED BY OTHER FACULTIES

**Recognized Courses Offered by Other Faculties:** The following First Year courses in the Faculty of Fine Arts are recognized for elective credit in the Faculty of Arts and Science: (see pages 189-210)

Art 150  
Creative Writing 100  
History in Art 120  
Music 101 A/B, 110, 115  
Theatre 100

Students in other than First Year should note that the following courses in the Faculty of Education and the Faculty of Fine Arts, in addition to those mentioned above, are acceptable for elective credit in the Faculty of Arts and Science.

Art 350  
Creative Writing: All courses marked with an asterisk  
History in Art: All courses marked with an asterisk  
Music: All courses marked with an asterisk  
Theatre: All courses marked with an asterisk

**Other Courses outside the Faculty of Arts and Science:** In addition to the above courses, students are permitted to take for credit a total of 6 units of free electives chosen without restriction from any undergraduate

courses offered in this University (except for Physical Education activity courses, e.g. 104-125, 461, 463, and School Experience or Practicum courses, e.g. Education-P 197, 297, 398, 498), where the regulations of the departments offering the courses permit, and prerequisites are met.

In exceptional cases, a student in a Major or Honours program may receive additional units of credit towards a degree program in the Faculty of Arts and Science for undergraduate courses not recognized in the Faculty of Arts and Science, provided that prior written permission has been obtained from the department in which the student wishes to undertake a Major or Honours program. In no case, however, may such credit be used to replace that specified for the Major or Honours program selected, nor may the credit for such courses be later transferred to another Major or Honours program unless the credit is then accepted by the department concerned.

Students on a General program who may wish to receive credit for more than 6 units for unrecognized courses offered by other faculties must secure the approval of the Assistant Dean of Arts and Science.

### CREDIT FOR STUDIES ELSEWHERE

Students who plan to undertake work at other universities must receive prior approval from the Dean if they wish such courses to be credited towards a degree program in the Faculty of Arts and Science. This applies particularly to courses at the 300 and 400 level and to courses which are included in the last 15 units of a degree program. Upon successful completion of such work, the student must request the Registrar of the other university to send an official transcript of record to the Records Office of the University of Victoria.

Students authorized to attend another institution who accept a degree from that institution abrogate the right to a University of Victoria degree until they have satisfied the University's requirements for a second bachelor's degree (see page 18).

Normally, the Faculty requires all students qualifying for a degree to complete at the University of Victoria at least twelve upper level units of the fifteen required for a Major Program, or at least six of the nine upper level units required in each area of the General Program. Students on Honours programs normally may take at another university no more than six upper level units in the discipline in which they are taking Honours, and then only with the approval of the Honours Adviser. In addition, students should complete at the University of Victoria at least eighteen of the twenty-one upper level units required for all degree programs.

### FOURTH YEAR CREDIT FOR STUDIES IN MEDICINE, DENTISTRY, VETERINARY SCIENCE OR LAW

Students who have taken their first three years at the University of Victoria may be granted a B.A. or B.Sc. after at least one year of a program in Medicine, Dentistry, Veterinary Science or Law, provided that the courses taken toward any one of those programs, when combined with those already taken in their first three years at the University of Victoria, are deemed equivalent to those which would be required to complete either a General or a Major program at the University of Victoria. Only courses which do not overlap courses already completed at the University of Victoria and which are acceptable to the departments concerned will be accepted for credit. The University shall receive assurance from any other institution involved that it will not also grant a Bachelor of Arts or a Bachelor of Science degree for the same work.

A student who contemplates transferring to a medical, dental, veterinary or law school before graduation should consult any departments concerned prior to registering in Third Year so that courses that meet the

requirements of a Major or General program are chosen. Following completion of Third Year, the student should then confirm in writing to the Dean that the student intends to transfer to such a school and seek credit for work taken there towards a bachelor's degree from this University.

Upon successful completion of the first year of studies in any of the programs mentioned, the student should submit an official transcript to Records Services, requesting an assessment by the departments concerned. The departments concerned will make the recommendation for a bachelor's degree through the Faculty to the Senate.

Students are referred to page 18 for regulations concerning graduation requirements.

### GRADUATION STANDING

The graduation standing of students in the Faculty of Arts and Science is determined in accordance with the University regulations on page 18 of the Calendar, except that the determination of the class of degree in an Honours program may be subject to conditions specified by the department concerned. Honours students should note, in particular, that the graduating average alone may not form the basis for determining eligibility for a First Class or Second Class Honours degree.

When a student graduates in a Double Honours program or a Combined Honours and Major program, the class of degree shall be determined in accordance with the regulations of each of the two disciplines. If one discipline is governed only by the University regulation (page 18), then in the computation of the graduating average for this discipline, 15 units of the discipline's own required courses shall be used when the number of units earned in upper level courses exceeds 30.

In any case where two different classes of degree result, each class shall be tied to the respective discipline instead of the degree, and shall be shown in the student's academic record.

### COURSES OPEN TO FIRST YEAR STUDENTS

For the guidance of students entering First Year, the following is a list of courses open to First Year students. In some cases prerequisites are specified. In others permission of the department is required. Students should consult the appropriate departmental entry elsewhere in this Calendar. Under certain circumstances, courses numbered 300 and above may be included in a student's graduating average (see page 18).

Anthropology 100A, 100B	Japanese 100, 149, 150, 201
Astronomy 120	Latin 100
Biology 101, 150	Liberal Arts 306, 307
Chemistry 100, 101, 102	Linguistics 100A, 100B
140	Mathematics 100, 101, 102, 151, 160A, 160B
Chinese 100, 149, 150, 201	Pacific Studies 200, 253, 254, 255, 256
Classical Studies 100, 200, 250	Philosophy 100, 201, 203, 211, 214, 222A/B, 232, 233, 235, 238, 242, 245, 269
Commerce 100	Physics 100, 102, 103, 110, 120, 125
Computer Science 100, 110, 112, 115	Political Science 100
Economics 100, 201, 202	Psychology 100
English 099, 115, 116, 121, 122	Russian 100, 149, 301, 304, 331, 390
French 100, 160, 165, 180, 181, 182	Serbo-Croatian 300
Geography 101A/B, 102	Sociology 100, 103
Geology 100A/B	Spanish 100, 150, 200, 250, 260
German 100, 149, 200, 204	Statistics 250
Greek 100, 160	
History 105, 130, 205, 210, 220, 234, 236, 240, 250, 251, 253, 254, 255, 256, 260	
Italian 100, 200	

### COURSES IN ARTS AND SCIENCES

<i>Course</i>	<i>Page</i>		
Anthropology	33	Computer Science	59
Astronomy	124	Contemporary Social and Political Thought	120
Biochemistry	37	Creative Writing (see Faculty of Fine Arts)	
Biology	42	Economics	64
Chemistry	51	English	70
Chinese	112	Environmental Studies	76
Classical Studies	55	Forest Biology	49
Commerce	66	French	78

Geography	82	Medieval Studies	111
Geology	86	Microbiology	38
German	88	Pacific Studies	114
Greek	56	Philosophy	117
History	93	Physics	122
History in Art (see Faculty of Fine Arts)		Political Science	126
Humanities	98	Psychology	130
Italian	92	Russian	134
Japanese	113	Serbo-Croatian	135
Latin	57	Slavonics	135
Liberal Arts	98	Sociology	136
Linguistics	100	Spanish	90
Marine Science	49	Statistics	109
Mathematics	107	Women's Studies	138

## DEPARTMENT OF ANTHROPOLOGY

Leland H. Donald, B.A. (Emory), Ph.D. (Ore.), Associate Professor and Chairman of the Department
William H. Alkire, B.A. (Wash.), M.A. (Hawaii), Ph.D. (Ill.) Professor
N. Ross Crumrine, B.A. (Northwestern), M.A., Ph.D. (Arizona), Professor
Donald H. Mitchell, B.A., B.Com., M.A. (Brit. Col.), Ph.D. (Ore.), Professor
Orville S. Elliot, A.B. (Middlebury), A.M., Ph.D. (Harvard), Associate Professor
David S. Moyer, B.A. (Franklin and Marshall Coll.), M.A. (Harvard), Ph.D. (Leiden), Associate Professor
Nicolas Rolland, B.Sc., M.A. (Montreal), Ph.D. (Cantab.), Associate Professor
Eric A. Roth, B.A. (Missouri), M.A., Ph.D. (Tor.), Associate Professor
Peter Schledermann, B.A. (U. of Alaska), M.A. (Nfld.), Ph.D. (Calg.), Part time Adjunct Associate Professor (1987-89)
Kathleen A. Berthiaume, B.A. (U. of Vic.), M.A., Ph.D. (Michigan), Assistant Professor
Peter D. Francis, B.A., M.A. (Tor.), Ph.D. (Calg.), Visiting Assistant Professor (1987-88)
Peter H. Stephenson, B.A. (Arizona), M.A. (Calg.), Ph.D. (Tor.), Assistant Professor

### GRADUATE PROGRAM

For information on studies leading to the M.A. degree, see page 216; for graduate courses see page 35.

### GENERAL, MAJOR AND HONOURS PROGRAMS

While neither Anthropology 100A nor 100B is required for the General Major, or Honours programs, First Year students who plan to undertake any of these programs are urged to enroll in the introductory courses.

**General** — *Second Year:* 200A, 200B, 240 and 250; *Third and Fourth Years:* nine additional units of Anthropology chosen from courses numbered 300 and above.

**Major** — *Second Year:* 200A, 200B, 240 and 250; *Third and Fourth Years:* a total of 15 units in Anthropology consisting of:

- 300A;
- at least one of 341A, 341B or 342;
- at least one of 350A, 350B, 451 or 453;
- one and a half units of 322, 323, 324, 325, 326, 327, 329, 334; and an additional one and a half units from the preceding list or from 335, 336, 339A, 339B;
- three units from 316, 317, 400, 401, 418, 441;
- four and one half units from 300B, 300C, 304, 305, 306, 310, 312, 341A, 341B, 342, 350A, 350B, 405, 406, 407, 419, 449, 451, 453; and one of Linguistics 100, 360, 361, or 3 units of Linguistics chosen in consultation with the Department of Anthropology.

Students who are allowed to take 390 or 490 should consult the Department when planning their programs.

NOTE: Anthropology 341A, 341B, or 342 cannot be used to satisfy both requirements (b) and (f). Anthropology 350A, 350B, 451, 453 cannot be used to satisfy both requirements (c) and (f).

**Honours** — *Second Year:* Students who have achieved at least high Second Class standing in Anthropology 200A, 200B, 240 and 250 may be admitted to the Third Year in the Honours Program with the permission of the Department; *Third and Fourth Years:* Students will offer at least 33 units of which 24 must be in Anthropology and include:

- 300A; 300B or 300C; 350A; 350B; 499; and at least two of 341A, 341B, 342;
- three units chosen from 316, 317 and 400;
- one and a half units from 322, 323, 324, 325, 326, 327, 329, 344; and an additional one and a half units either from the preceding lists, or from 335, 336, 339A, 339B;
- six units chosen to include at least one and a half units from each of the following groups:
  - 300B, 300C, 305, 306, 310, 312, 401, 405, 406, 407, 418, 419;
  - 341A, 341B, 342, 441, 449, 451, 453.

NOTE: Anthropology 300B, 300C, 341A, 341B or 342 cannot be used to satisfy both requirements (a) and (d).

In addition students will be expected to achieve satisfactory standing in courses in Linguistics and in techniques of analysis chosen in consultation with the Department. Students who are allowed to take Anthropology 390 or 490 should consult the Department when planning their programs.

In addition to University requirements concerning Honours Degrees, the Department of Anthropology requires: (1) a grade point average of 6.50 or higher in upper level courses in Anthropology for a First Class Honours Degree and (2) a grade point average of 3.50-6.49 in upper level courses in Anthropology for a Second Class Honours Degree. A student who fails to attain a grade point average of 3.50 or higher but who completes the requirements for the Major Degree may be awarded a Major Degree.

### UNDERGRADUATE COURSES

#### Prerequisite for Third and Fourth Year Courses:

Courses numbered 300 and above may be chosen as electives if one of the following conditions is satisfied:

- Completion of 100A and/or 100B as a prerequisite and completion of other prerequisites or corequisites specified for the course selected.
- Completion of 200A and 200B as a prerequisite or corequisite and completion of other prerequisites specified for the course selected.
- The student has at least Third Year standing and the permission of the course instructor.

NOTE 1: Students qualifying under (b) taking 200A and 200B as a corequisite and students qualifying under (c) may find it necessary to do additional reading.

NOTE 2: Students who have taken 100A and/or 100B as a First Year elective may also enroll in 200A and 200B and/or 240 and/or 250 as electives in their Second or later years.

NOTE 3: For courses carrying A or B designations, A is not a prerequisite of B.

Students should consult the Department concerning courses offered in a particular year.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**ANTH 100A (formerly half of 100) (1½) INTRODUCTION TO HUMAN EVOLUTION AND PREHISTORY**

An introductory survey of the fields of biological anthropology and prehistoric archaeology; topics include the basis of human evolution, a survey of nonhuman primates, the human fossil record, cultural beginnings and stone age cultures, origins and development of agriculture and urban civilizations. (3-0)

**ANTH 100B (formerly half of 100) (1½) INTRODUCTION TO CULTURAL ANTHROPOLOGY**

An introductory survey of the field of ethnology; topics for discussion include subsistence patterns, political and economic systems, kinship, language, religion and magic. (3-0)

**ANTH 200A (formerly half of 200) (1½) CULTURAL AND SOCIAL ANTHROPOLOGY: I**

An introduction to the analysis of sociocultural systems. Major topics to be considered include the concept of culture, subsistence, production and distribution systems and social organization and kinship. Examples will be taken from societies representing different levels of complexity and various parts of the world. (*Prerequisite:* At least Second Year standing or completion of 100B) (3-0)

**ANTH 200B (formerly half of 200) (1½) CULTURAL AND SOCIAL ANTHROPOLOGY: II**

A continuation of 200A. Major topics to be considered include political, religious, and symbolic systems, expressive culture, and culture change. Examples will be taken from societies representing different levels of complexity and various parts of the world. (*Prerequisite:* 200A) (3-0)

**ANTH 211 (1½) INTRODUCTION TO APPLIED ANTHROPOLOGY**

An introduction to the acquisition of culturally appropriate data for the solution of practical problems arising in the context of social change. The course surveys applications of anthropological research to various fields such as agricultural development, population planning, the impact of technological change, education, law, medicine, and heritage resource management. (*Prerequisite:* 100B or 200A) (3-0)

**ANTH 240 (1½) ARCHAEOLOGY**

An introduction to archaeological research and problems of interpretation. Laboratories will provide an opportunity to become familiar with archaeological materials and with some basic techniques of analysis. (*Prerequisite:* At least Second Year standing or completion of 100A) (2-2)

**ANTH 250 (1½) PHYSICAL ANTHROPOLOGY**

An introduction to the investigation of biological characteristics of human populations; evolution of human populations. Laboratories will introduce students to some basic techniques used in the study of physical anthropology. (*Prerequisite:* At least Second Year standing or completion of 100A) (2-2)

**ANTH 300A (formerly part of 300) (1½) KINSHIP AND MARRIAGE**

Comparative analysis of kinship and kinship based groups, especially descent groups; marriage in cross cultural perspective; the emphasis is placed on nonstate societies. (*Prerequisite:* 200A and 200B or permission of instructor) (3-0)

**ANTH 300B (formerly part of 300) (1½) COMPARATIVE SOCIAL STRUCTURE**

Comparative analysis of social structure emphasizing material from nonstate societies; nonkin institutions such as age grades and secret societies, as well as those based on kinship as discussed. (*Prerequisite:* 300A or permission of instructor) (3-0)

**ANTH 300C (formerly part of 300) (1½) COMPLEX SOCIETIES IN CROSS CULTURAL PERSPECTIVE**

Cross cultural analysis of societies where stratification and/or the state are major features of society; peasant society, caste, slavery, and the development of social inequality are among the major topics discussed. (*Prerequisite:* 300A or permission of instructor) (3-0)

**ANTH 304 (1½) TECHNOLOGY IN CULTURE**

A review of technology from its protocultural foundations. The course surveys various techniques and places them in chronological, geographical and cultural context. (3-0)

**ANTH 305 (1½) ANTHROPOLOGY OF THE ARTS**

Comparative approaches to the arts in different cultural traditions with

special emphasis on the arts of prehistoric and nonliterate cultures. (3-0)

**ANTH 306 (1½) FOLKLORE AND MYTHOLOGY**

Oral traditions of nonliterate peoples. The structure and functions of specific types of material. The relation of the study of folklore and mythology to other interests in Anthropology. (3-0)

**ANTH 310 (1½) ANTHROPOLOGICAL APPROACHES TO COMPARATIVE RELIGION**

Consideration of the various approaches to the study of religion and religious behaviour used by anthropologists. Comparative analysis of belief and ritual systems. (3-0)

**ANTH 312 (formerly 412) (1½) MEDICAL ANTHROPOLOGY**

Practices and beliefs of selected societies related to the concept of "health" are described and problems of disease prevention, identification, and treatment in crosscultural situations are examined. Topics covered may include: epidemiology; disease and evolution; and transcultural nursing and psychiatry. (3-0)

**ANTH 316 (formerly 416) (1½) INTRODUCTION TO ANTHROPOLOGICAL RESEARCH: I**

Designed to introduce students to research methods suitable for anthropological problems. Emphasis is placed on formulation of researchable anthropological propositions, research design, and elementary techniques of data analysis. (3-0)

**ANTH 317 (formerly 417) (1½) INTRODUCTION TO ANTHROPOLOGICAL RESEARCH: II**

Formal methods of analysis in Anthropology, especially statistics, problems of validation, and the comparative method. (*Prerequisite:* 316, 416, or permission of the instructor) (2-2)

**ANTH 321 (3) CULTURES AND PEOPLES OF THE WORLD**

A broad introductory survey of comparative ethnography, including discussion of the major cultural regions of the world and selected examples of societies at various levels of complexity. (*Prerequisite:* At least Third Year standing or 100B) (3-0)

**ANTH 322 (1½) ETHNOLOGY OF NORTH AMERICA**

The major culture areas of aboriginal North America with description and analysis of selected cultures; introduction to problems in the interpretation of North American ethnology. (3-0)

**ANTH 323 (1½) ETHNOLOGY OF CIRCUM-POLAR REGION**

The cultures of Arctic and sub-Arctic Eurasia and North America. (3-0)

**ANTH 324 (1½) ETHNOLOGY OF MIDDLE AMERICA**

An integrated description and analysis of the cultural history and present day economic, social, political, and religious ways of life of selected Indian and mestizo groups of Mexico and Central America; recent changes and modern trends in cultural development. (3-0)

**ANTH 325 (1½) ETHNOLOGY OF SOUTH AMERICA**

An integrated description and analysis of the cultural history and present day economic, social, political, and religious ways of life of selected Indian groups of South America. (3-0)

**ANTH 326 (1½) ETHNOLOGY OF OCEANIA: MICRONESIA AND POLYNESIA**

Ethnological description and analysis of the cultures of Micronesia and Polynesia. (3-0)

**ANTH 327 (1½) ETHNOLOGY OF OCEANIA: AUSTRALIA AND MELANESIA**

Ethnological description and analysis of the aboriginal peoples and cultures of Australia and Melanesia. (3-0)

**ANTH 329 (1½) ETHNOLOGY OF SOUTHEAST ASIA**

An integrated description and analysis of the peoples and cultures of Mainland and Island Southeast Asia. (3-0)

**ANTH 334 (1½) ETHNOLOGY OF SUB-SAHARAN AFRICA**

A survey of the traditional cultures of sub-Saharan Africa; recent changes and problems of modernization. (3-0)

**ANTH 335 (1½) CANADIAN ETHNIC GROUPS**

An anthropological perspective on the ethnic groups of Canada. The groups will be studied in the context of the wider literature of race relations, minority groups, and ethnicity. (3-0)

**ANTH 336 (1½) THE CONTEMPORARY CANADIAN INDIAN**

The native Indian in modern Canadian society. Comparison with the situation of other native peoples in various parts of the world. (3-0)

**ANTH 339A (1½) INDIANS OF THE NORTHWEST INTERIOR**

A survey of the groups and cultures of the Plateau culture area and the adjacent portion of the sub-Arctic culture area. (3-0)

**ANTH 339B (1½) INDIANS OF THE NORTHWEST COAST**

A survey of groups and cultures of the Northwest Coast culture area. (3-0)

**ANTH 341A (1½) EARLY STONE AGE SOCIETIES**

A review of the formative phases in the development of prehistoric cultures and societies during the Pleistocene/early Holocene in Africa, Eurasia and Australasia. Archaeological evidence on cultural beginnings, ecology, subsistence systems, technology and social life of early mankind. (*Prerequisite:* 240 or permission of the instructor) (3-0)

**ANTH 341B (1½) EMERGENCE OF CIVILIZATION**

A review of the archaeological record on: the origin of animal/plant husbandry, sedentary village life and pastoralism, technological innovation and social life; of subsequent developments leading to the appearance of the first cities, state institutions and stratified societies in major centres of the Old World. (*Prerequisite:* 240 or permission of the instructor) (3-0)

**ANTH 342 (1½) ARCHAEOLOGY OF PRECOLUMBIAN AMERICA**

A survey of the archaeological record for the development of aboriginal cultures and societies of the New World prior to European colonization, from late Ice Age settlement of North and South America through the appearance of farming villages up to the growth of urban civilizations of middle America and the Andes. (*Prerequisite:* 240 or permission of the instructor) (3-0)

**ANTH 350A (1½) PRIMATOLOGY**

A detailed survey of the field of primatology including taxonomy, genetics, morphology, palaeontology, ecology, zoogeography, growth and behaviour of the primates. (*Prerequisite:* 250 or permission of the instructor) (3-0)

**ANTH 350B (1½) HUMAN PALAEOANTHROLOGY**

An examination of the fossil evidence for human evolution emphasizing the interpretation and reconstruction of the human lineage. (*Prerequisite:* 250 or permission of the instructor) (3-0)

**ANTH 390 (1½) SELECTED PROBLEMS IN ANTHROPOLOGY**

Presentation of selected problems in Anthropology. Students interested in this course should enquire at Registration when the course is to be offered and what substantive areas are to be studied. Students may enroll in this course in different areas for a maximum of 3 units. (*Prerequisite:* Permission of instructor) (3-0)

**ANTH 400 (1½, formerly 3) ANTHROPOLOGICAL THEORY**

Survey of selected major developments in anthropological theory in historical perspective. (3-0)

**ANTH 401 (1½) CULTURAL ECOLOGY**

Theories concerning the relationship of human groups, culture and environment; cultural systems as the means which human populations adapt to their environments. (3-0)

**ANTH 405 (1½) ECONOMIC ANTHROPOLOGY**

A comparative analysis of the social context of production, distribution and exchange systems. (3-0)

**ANTH 406 (1½) POLITICAL ANTHROPOLOGY**

Comparative analysis of governing institutions in societies ranging from tribal groups to various types of state organizations. In each type of political system, the modes of allocating decision making powers and administrative authority will be examined. (3-0)

**ANTH 407 (1½) SYMBOLIC ANTHROPOLOGY**

The nature of symbolic systems in human societies; material examined includes not only manifestly symbolic systems such as religion and art but also systems of classification in general, particularly those closely related to the social order. (3-0)

**ANTH 418 (SOCl 418) (1½) SOCIAL CHANGE**

General history of cultural evolution and social change. The impact of

complex cultures upon the native peoples of Africa, Asia, the Pacific and the Americas. (*Prerequisite:* 100A and/or 100B or 200A/200B, and SOCl 100, or permission of the instructor) (3-0)

**ANTH 419 (SOCl 419) (1½) MODERNIZATION AND DEVELOPMENT**

An examination of selected theories and research on development, underdevelopment and dependence in the modern world; examples will be taken from various parts of the world, including Canada. (3-0)

**ANTH 441 (1½) ARCHAEOLOGICAL METHOD AND THEORY**

The strategy of research in archaeology; archaeology as a subdiscipline and its comparison with related fields; the course emphasizes theories of research methodology in archaeology as well as the contribution of archaeology to theories of cultural process. (*Prerequisite:* 240; *pre- or corequisite:* 317 or 417 or a course in statistics acceptable to the Department) (3-0)

**ANTH 449 (1½) ARCHAEOLOGY OF THE PACIFIC NORTHWEST**

Intensive study of problems of interpreting Pacific Northwest archaeological data. Field trips will be scheduled. (2-3)

**ANTH 451 (1½) HUMAN OSTEOLOGY**

This course is designed to familiarize students with theoretical and methodological approaches to the study of human skeletal remains. (*Prerequisite:* 250 or permission of the instructor) (2-3)

**ANTH 453 (1½) POPULATION STRUCTURE AND HUMAN EVOLUTION**

Analysis of the population dynamics of prehistoric and contemporary preindustrial populations in an evolutionary context. (*Prerequisite:* 250 or permission of the instructor) (2-3)

**ANTH 490 (1½-3) DIRECTED STUDIES**

Students may register for this course in the Fourth Year of the Major or Honours Program with permission of the Department and the Instructor. (*Prerequisite:* Fourth Year standing and permission of the Department and the Instructor)

**ANTH 499 (3) HONOURS SEMINAR AND GRADUATING ESSAY****GRADUATE COURSES**

Not all the following courses will be offered in a particular year. Students should consult the Department to determine the courses which will be offered this year.

**ANTH 500 (3) SEMINAR IN ANTHROPOLOGICAL THEORY****ANTH 501 (1½) SEMINAR IN SOCIAL AND CULTURAL ANTHROPOLOGY****ANTH 510 (1½) SELECTED TOPICS IN SOCIAL AND CULTURAL ANTHROPOLOGY**

Depending on the student's interests and the availability of an instructor, studies may be selected in one or more of the following:

- 510A Social Organization
- 510B Economic Anthropology
- 510C Political Anthropology
- 510D Anthropology of Religion
- 510E Symbolic Anthropology
- 510F Cultural Ecology
- 510G Cultural Change
- 510H Medical Anthropology

**\* ANTH 530 (1½) ETHNOLOGY OF SELECTED AREAS**

Depending on the student's interests and the availability of an instructor, studies may be selected in one or more of the following:

- 530A North America
- 530B Circum-Polar Region
- 530C Middle America
- 530D South America
- 530E Oceania
- 530F Northeast Asia
- 530G Southeast Asia
- 530H Sub-Saharan Africa
- 530J Pacific Northwest

**ANTH 540 (1½) SEMINAR IN ARCHAEOLOGY AND CULTURE HISTORY**

\* **ANTH 542 (1½) ARCHAEOLOGY OF A SELECTED AREA**

**ANTH 550 (1½) SEMINAR IN PHYSICAL ANTHROPOLOGY**

\* **ANTH 552 (1½) SELECTED TOPICS IN PHYSICAL ANTHROPOLOGY**

Depending on the student's interests and the availability of an instructor, studies may be selected in one or more of the following:

552A Applied Topics in Osteological Methods

552B Soft Part Methods in Population Variation

552C Anthropometry and Disease

552D Primatology

**ANTH 560 (LING 560)(1½) LINGUISTIC ANTHROPOLOGY**

\* **ANTH 590 (1½-3) DIRECTED STUDIES**

**ANTH 597 (0) ORAL EXAMINATIONS** (Grading: INP, COM, N or F)

**ANTH 599 (6) THESIS** (Grading: INP, COM, N or F)

\* Students must consult the Department before enrolling in this course.

## ARTS COOPERATIVE EDUCATION PROGRAM

The Arts Cooperative Education Program is a year round program which, through work terms of employment in business and public organizations, enables students to combine work experience with an education in the liberal arts.

To qualify for admission into the Arts Coop Program, a student must be proceeding to an Honours or Major B.A. degree in one or more of the following Departments: Classics, English, French Language and Literature, Germanic Studies, Hispanic and Italian Studies, History, Linguistics, Pacific and Asian Studies (see p.111), Philosophy and Slavonic Studies. In addition, a student must be registered in at least fifteen units of course work and must have achieved at least a 5.00 Grade Point Average in first year. A formal interview to determine the student's interests, abilities and aptitudes will be required before admission.

To continue in the program, a student must be a full time student enrolled in a program leading to an Honours or Major B.A. degree in one of the Departments listed in the previous paragraph, and must maintain a G.P.A. of at least 5.50 in the courses in the major area, and at least a 5.00 average overall.

To receive the Coop notation on graduation, a student must complete at least 15 units of approved Arts Coop courses (see below), must complete satisfactorily the Work Term Preparation Seminar prior to the first work term, and must perform satisfactorily in each of at least four Work Terms. Details of Work Terms are recorded on the Record of Work Terms which is attached to the student's academic record and transcript.

The Arts Coop Program is designed to provide students with an academic background and certain skills appropriate to a wide range of careers. In particular, students will be required to select a program of studies intended to ensure that they

- are capable of clear and precise oral and written communication in English
- acquire some understanding of management practice and the Canadian financial system
- are aware of the Canadian historical and political context

- are aware of the social impact of science and technology, with particular emphasis on computing.

*A student's selection of Arts Coop courses must be approved by both the Arts Coop Coordinator and the responsible Departmental Adviser.*

### COURSES

Students must complete a minimum of 15 units, not forming part of the requirements for the student's Major or Honours program. The requirements in Group 1 should normally be completed by the end of third year.

**Group 1:** 9 units must be selected from the following list:

CSC 100 (1½) Elementary Computing

COMM 100 (1½) Introduction to Business

ECON 100 (1½) The Canadian Economy - Problems and Policies

ENGL 215 (1½) The Writing of Expository Prose

OR

ENGL 225 (1½) Technical Communications: Written and Verbal

HIST 130 (3) History of Canada

PHIL 201 (1½) Applied Logic: I

OR

PHIL 203 (1½) Applied Logic: II

PHIL 222B (1½) Philosophy of Science: Social and Ethical Issues

POLI 100 (3) Canadian Government and Politics

OR

POLI 470 (3) Government in Canada

**Group 2:** 6 units must be selected from the list of approved Arts Coop courses. The list is available from the Arts Coop Coordinator.

Applications and further information about the Arts Cooperative Education Program may be obtained from the Arts Coop Coordinator in the Office of Cooperative Education Programs.

## DEPARTMENT OF BIOCHEMISTRY AND MICROBIOLOGY

William W. Kay, B.Sc. (Agr.), M.Sc., Ph.D. (Brit. Col.), Professor and Chairman of the Department

Christopher H. Bigland, D.V.M., D.V.P.H. (Tor.), M.Sc. (Alta.), Part Time Adjunct Professor (1986-88)

J. Thomas Buckley, B.Sc., Ph.D. (McGill), Professor

Edward E. Ishiguro, B.A., M.A. (San Francisco St. Coll.), Ph.D. (Ill.), Professor

Alistair T. Matheson, B.A., M.Sc. (Brit. Col.), Ph.D. (Tor.), F.R.S.C., Professor

Trevor J. Trust, B.Sc., M.Sc., Ph.D. (Melbourne), Professor

Sydney J. Webb, B.Sc., M.Sc., Ph.D. (London), Part time Adjunct Professor (1986-88)

Robert W. O'afson, B.Sc., M.Sc. (Brit. Col.), Ph.D. (Alta.), Associate Professor

Terry W. Peterson, B.Sc., Ph.D. (Brit. Col.), Associate Professor

Gael H. Huntley, B.Sc., M.Sc. (Brit. Col.), B.Sc. (Oxon.), Ph.D. (S. Fraser), Visiting Assistant Professor (1987-88)

Janice M. Joneja, B.Sc., Ph.D. (Birm.), Adjunct Assistant Professor (1987-88)

Rozanne Poulson, B.Sc., Ph.D. (Wales), Administrative Officer and Part Time Adjunct Assistant Professor (1987-89)

Paul J. Romaniuk, B.Sc., Ph.D. (McMaster), Assistant Professor

Kathleen N. Cliff, B.Sc., M.Sc. (Alta.), Senior Laboratory Instructor  
Glen R. Pryhitka, B.Sc. (Brit. Col.), Senior Laboratory Instructor

### GRADUATE PROGRAMS

For information on studies leading to the M.Sc. or Ph.D. degrees, see page 217, for graduate courses, see page 39.

### GENERAL, MAJOR, AND HONOURS PROGRAMS

The Department offers Honours and Major programs in Biochemistry or Microbiology. Students seeking careers as professional Biochemists or Microbiologists, or those who wish to continue their studies through graduate school to the M.Sc. and Ph.D. level are advised to take one of the Honours programs. The Major programs may also provide entry to the professions or to graduate school and are suitable for teaching at the secondary school level. The Department also offers a concentration in Biochemistry and Microbiology as part of the B.Sc. and B.A. degree General programs.

**BIOCHEMISTRY AND MICROBIOLOGY PROGRAMS**

General	Major	Honours
<b>First Year</b>		
	ENGL 121 (or 115) (1½)	ENGL 121 (or 115) (1½)
	ENGL 122 (or 116) (1½)	ENGL 122 (or 116) (1½)
MATH 100/101 (3)	MATH 100/101 (3)	MATH 100/101 (3)
CHEM 100/102 or 101/102 or 140/245 or 102/140 (3)	CHEM 100/102 or 101/102 or 140/245 or 102/140 (3)	CHEM 100/102 or 101/102 or 140/245 or 102/140 (3)
Two of PHYS 110 (or 125)/120/220 (3)	Two of PHYS 110 (or 125)/120/220 (3)	Two of PHYS 110 (or 125)/120/220 (3)
Other courses (6)	Other courses (3)	Other courses (3)

<b>Second Year</b>		
STAT 250/251 (or BIOL 250/251)† (3)	STAT 250/251 (or BIOL 250/251)† (3)	STAT 250/251 (or BIOL 250/251)† (3)
CHEM 231 (1½)	CHEM 231 (1½)	CHEM 231 (1½)
CHEM 213 (1½)	CHEM 213 (1½)	CHEM 213 (1½)
CHEM 235 (1½)	CHEM 235 (1½)	CHEM 235 (1½)
BIOC 200 (1½)	BIOC 200 (1½)	BIOC 200 (1½)
BIOL 200 (1½)	BIOL 200 (1½)	BIOL 200 (1½)
MICR 200 (3)	MICR 200 (3)	MICR 200 (3)
Other courses (1½)	Other courses (1½)	Other courses (1½)

\* recommended  
† See Note 4, in right column

Third and Fourth Years	Third Year	Third Year
Nine additional units of Biochemistry and Microbiology numbered 300 and above (9)	CHEM 222 (1½) CHEM 245 (1½)  BIOC 300 (3)  MICR 301 (1½) MICR 302 (1½)	CHEM 222 (1½) CHEM 245 (1½)  BIOC 300 (3)  MICR 301 (1½) MICR 302 (1½)
Nine units in a second area of concentration (9)	BIOC 380 or MICR 380 (0)	BIOC 380 or MICR 380 (0)
Other courses (12)	Other courses (6)	Other courses (9)
	<b>Fourth Year</b>	<b>Fourth Year</b>
	CHEM 335/338 or 345/346 (3)	CHEM 335/338 or 345/346 (3)
	Two of BIOC 401, 403, 404 or 405 (3)	Two of BIOC 401, 403, 404, or 405 (3)
	Two of MICR 401, 402, 403, 404 or 405 (3)	Two of MICR 401, 402, 403, 404 or 405 (3)
	BIOC 406 or MICR 406 (3)	BIOC 406 or MICR 406 (3)
	BIOC 480 or MICR 480 (1½)	BIOC 480 or MICR 480 (1½)
	Other courses (1½)	BIOC 499 or MICR 499 (3)
		Other courses (1½)

Other courses suggested:  
ENGL 200 or higher level courses  
A language at the 100 level or higher  
MATH 233A, 233C  
CSC 110, 115  
CHEM 312, 318, 324, 338, 345, or 400 level courses  
BIOL 203, 204, 206, 207, 300, 305A, 305B, or 400 level courses  
PHYS 214, 215, 216, 217, 316, 317, or 325  
BIOC 201

- Notes**
- (1) Proficiency examinations in one or two modern languages are often required in graduate studies, and students planning graduate work are advised to elect one or two courses in French, German, Russian, or another modern language on Departmental recommendation.
  - (2) Courses may be taken in different sequences and in different years than indicated provided that the co- and prerequisite requirements are satisfied; the Department should be consulted.
  - (3) Directed studies courses are not available to be taken more than once and are normally only available to students with an overall grade point average of at least 3.50.
  - (4) Those students who wish to take CHEM 345 and 346 in the fourth

year should take MATH 200/201 rather than STAT 250/251 (or BIOL 250/251) in the second year.  
(5) Students should consult the Department concerning courses offered in a particular year.

**BIOCHEMISTRY OR MICROBIOLOGY AND CHEMISTRY COMBINED MAJOR**

Students wishing to obtain a combined major in Biochemistry or Microbiology and Chemistry should take the following program.

First Year	Second Year
CHEM 100 <sup>a</sup> , or 101 <sup>b</sup> , or 140 <sup>c</sup> (1½)	BIOC 200 (1½)
CHEM 102, or 245 <sup>d</sup> (1½)	BIOL 200 (1½)
ENGL 121/122, or 115/116 (3)	CHEM 213/222/231/235/245 (7½ or 6*)
MATH 100/101 (3)	MATH 200 (1½)
Two of PHYS 110 (or 125)/120/220 (3)	MICR 200 (3)
Other courses (Electives; may include CHEM 231) (3)	Other courses (Electives) (0 or 1½*)
<b>Third Year</b>	<b>Fourth Year</b>
BIOC 300 (3)	Two of BIOC 401/403/404/405 (3)
BIOC 380 or MICR 380 (0)	BIOC 406 or MICR 406 (3)
CHEM 323/324/335/338/345/346 (9)	BIOC 480 or MICR 480 (1½)
MICR 301/302 (3)	CHEM 312/433 (3)
	CHEM 424 or other 400 level Chemistry course with permission of department (1½)
	Two of MICR 401/402/403/404/405 (3)

- <sup>a</sup>For students with Chemistry 11 and Algebra 12 or Mathematics 12 or equivalents  
<sup>b</sup>For students with Chemistry 12 and Algebra 12 or Mathematics 12 or equivalents  
<sup>c</sup>For students with at least "B" standing in Chemistry 12 and Algebra 12  
<sup>d</sup>For students with at least "B" standing in CHEM 140  
\*If CHEM 245 completed previously

**HONOURS**

Students who wish to be admitted to one of the Honours programs should apply to the Chairman of the Department on completion of their second year. The general requirements for admission to the third year of the Honours program are specified above. Normally admission to the Honours program requires at least a second class average in each of the first two undergraduate years. The minimum requirement for admission to the fourth year is a second class average overall in the work of the third year.

A student in the Biochemistry or Microbiology Honours program is required to meet the general regulations of the University on pages 14 to 19 of this Calendar. If a student fails to meet the standards for the Honours degree, while meeting the Major degree requirements, the Department may recommend the appropriate class of Major degree.

**DOUBLE HONOURS**

University regulations also apply to students in a Double Honours Program which includes Biochemistry or Microbiology; however as more than 30 units of upper level courses may be taken, the Department requires that, of the upper level courses in Biochemistry and Microbiology, 15 units must be included in the 30 units used to calculate the graduating average and these 15 units must include BIOC or MICR 380, 480, 499.

**UNDERGRADUATE COURSES  
BIOCHEMISTRY**

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**BIOC 200 (1½) INTRODUCTORY BIOCHEMISTRY**  
An introduction to the principles of Biochemistry. Properties of biomolecules, basic enzymology and metabolism. Bioenergetics, nucleic acid structure and synthesis. Protein synthesis. Structure and properties of membranes. (Note: BIOL 200 should be taken in the second term; see BIOL 200. (Pre- or corequisite: CHEM 231 or 230)  
W.W. Kay F(3-2)

## MICROBIOLOGY

**BIOC 201 (1½) INTRODUCTION TO NUTRITIONAL BIOCHEMISTRY**

This course will be oriented to students interested in a general understanding of man's nutritional needs and the food supplies and procedures available to meet them. Requirements for protein, carbohydrate, fat, vitamins and minerals will be discussed and related to cellular biochemical mechanisms. Energy balance, dieting and world food problems will also be considered.

J.T. Buckley

S(3-0)

**BIOC 300 (3) GENERAL BIOCHEMISTRY**

An intermediate course in Biochemistry. Protein structure, enzyme kinetics, bioenergetics and metabolism. Membrane structure and transport. Metabolic control systems. Synthesis of DNA and RNA, protein synthesis and morphogenesis. (*Prerequisites*: 200; BIOL 200; *pre- or corequisite*: CHEM 213)

R.W. Olafson

Y(3-3)

**BIOC 380 (0) SEMINAR**

Attendance and participation in either BIOC 380 or MICR 380 is required for students in the third year of the Major and Honours programs. Credit for attendance will not be given for both BIOC 380 and MICR 380. Attendance is recommended for students in their first and second years who plan to enter Major and Honours programs. (Grading: COM, N, or F)

Y(2-0)

**BIOC 401 (1½) NUCLEIC ACIDS:**

An advanced study of the structures and function of RNA and DNA. Topics will include protein synthesis in prokaryotes and eukaryotes and the supramolecular organization of chromatin, ribosomes and viruses. (*Prerequisite*: 300, or permission of the Department)

A.T. Matheson, P.J. Romaniuk

NO(3-0)

**BIOC 403 (formerly part of 402) (1½) LIPIDS AND MEMBRANES**

The molecular properties of the various classes of lipids and glycolipids, as well as their biosynthesis and regulation, will be considered. The supramolecular structure, function and assembly of biological membranes will constitute the major content of the course. The course will consist of formal lectures in addition to required reading and brief seminars by the students. (*Pre- or corequisite*: 300)

J.T. Buckley, W.W. Kay

F(3-0)

**BIOC 404 (formerly part of 402) (1½) PROTEINS**

Detailed examination of protein structure emphasizing techniques for isolation, characterization, chemical modification and synthesis of proteins and peptides. The course will consist of formal lectures in addition to required readings and brief seminars by the students. (*Pre- or corequisite*: 300)

R.W. Olafson

S(3-0)

**BIOC 405 (1½) MOLECULAR BIOTECHNOLOGY**

A detailed consideration of recent advances in the molecular basis for biotechnology. The course consists of lectures with oral and written presentations by the students on selected topics. Attendance at seminars given by visiting speakers will be required. (*Prerequisite*: MICR 200; *pre- or corequisite*: 300) (Credit will not be given for both 405 and MICR 405)

F(3-0)

**BIOC 406 (3) ADVANCED BIOCHEMISTRY LABORATORY**

An advanced laboratory in biochemical and molecular biological techniques. (*Prerequisites*: 300 and MICR 200) (Credit will not be given for both 406 and MICR 406)

Y(0-5)

**BIOC 470 (1½ or 3) DIRECTED STUDIES IN BIOCHEMISTRY****BIOC 480 (1½) SEMINAR**

Seminars are presented weekly by invited speakers, Department members and all students in the fourth year of the Major and Honours programs. Students are required to submit a literature research paper of up to 3,000 words as well as a condensed abstract and to deliver an oral presentation. Attendance and participation in either BIOC 480 or MICR 480 is required of all students. (Credit will not be given for both BIOC 480 and MICR 480.)

Y(2-0)

**BIOC 499 (3) UNDERGRADUATE THESIS**

Research under the direction of a faculty member. Open to Honours students only. (Credit will not be given for both BIOC 499 and MICR 499.)

**MICR 101 (1½) ESSENTIALS OF MICROBIOLOGY AND IMMUNOLOGY**

The basic concepts of microbiology and immunology with particular reference to human disease. Properties of infectious agents and methods used in their control will be considered. The course will be oriented towards the needs of students of nursing. (Degree credit will not normally be counted for both 101 and 200.) Texts: Buffaloe and Ferguson, *Microbiology*; Microbiology 101 Laboratory Manual

NO(2-2)

**MICR 200 (3) INTRODUCTORY MICROBIOLOGY**

This course is designed to provide a broad introduction to the field of microbiology. Basic principles in the following areas will be covered: prokaryotic cell structure and function; physiology and growth of microorganisms with an emphasis on diversity; virology; microbial genetics; immunology; medical microbiology; applied microbiology; microbial ecology. (Degree credit will not normally be counted for both 101 and 200.) (*Prerequisite*: At least Second Year standing or written permission of the instructor)

T.J. Trust, E.E. Ishiguro, T.W. Pearson

Y(2-2)

**MICR 301 (1½) INFECTION AND IMMUNITY**

Consideration of pathogenic bacteria and viruses; mechanisms of pathogenicity; detailed examination of the major infectious diseases; the immune and allergic response. (*Prerequisite*: 200 or permission of the Department)

T.J. Trust

F(2-3)

**MICR 302 (1½) MICROBIAL GENETICS**

Principles of bacterial and bacteriophage genetics. Mutagenesis and selection of mutants; genetic exchange mechanisms in microorganisms; genetic recombination; modern techniques for genetic mapping and for analyses of gene structure, function, and expression. (*Prerequisites*: 200 and BIOC 200; or written permission of instructor)

E.E. Ishiguro

S(2-3)

**MICR 380 (0) SEMINAR**

Attendance and participation in either MICR 380 or BIOC 380 is required of students in the third year of the Major and Honours programs. Credit for attendance will not be given for both MICR 380 and BIOC 380. Attendance is recommended for students in their first and second years who plan to enter Major and Honours programs. (Grading: COM, N, or F)

Y(2-0)

**MICR 401 (formerly half of 400) (1½) MOLECULAR PHYSIOLOGY**

An advanced consideration of the molecular aspects of microbial cell structure and growth. Emphasis will be given to the coordination of microbial catabolism, bioenergetics and biosynthesis and cell assembly. The course will consist of formal lectures with additional literature reading and brief seminars by students. (*Prerequisite*: 200; *pre- or corequisite*: BIOC 300)

NO(3-0)

**MICR 402 (formerly half of 400) (1½) VIROLOGY**

An advanced consideration of molecular aspects of plant, animal and bacterial viruses with emphasis on structural morphogenesis and gene expression. The course consists of lectures with oral and written presentations by the students on selected topics. (*Prerequisite*: 200; *pre- or corequisite*: BIOC 300)

NO(3-0)

**MICR 403 (formerly half of 400) (1½) IMMUNOLOGY**

The generation of antibody diversity; immune effector mechanisms and their regulation; immunological principles as applied to research and medicine. The course consists of lectures with oral and written presentations by the students on selected topics. Attendance at seminars given by visiting speakers will be required. (*Prerequisite*: 200)

T.W. Pearson

S(3-0)

**MICR 404 (1½) MOLECULAR PATHOGENICITY**

A detailed consideration of recent advances in microbial pathogenesis. The course consists of lectures with oral and written presentations by the students on selected topics. Attendance at seminars given by visiting speakers will be required. (*Prerequisite*: 301, or permission of the instructor)

NO(3-0)

**MICR 405 (1½) MICROBIAL BIOTECHNOLOGY**

A consideration of the application of microorganisms to biotechnology. The course consists of lectures with oral and written presentations by the students. Attendance at seminars given by visiting speakers will be re-

quired. (*Prerequisite*: 200; *pre- or corequisite*: BIOC 300) (Credit will not be given for both 405 and BIOC 405) F(3-0)

#### **MICR 406 (3) ADVANCED MICROBIOLOGY LABORATORY**

An advanced laboratory in microbiological and molecular biological techniques. (*Prerequisites*: 200; BIOC 300) (Credit will not be given for both 406 and BIOC 406) Y(0-5)

#### **MICR 470 (1½ or 3) DIRECTED STUDIES IN MICROBIOLOGY**

#### **MICR 480 (1½) SEMINAR**

Seminars are presented weekly by invited speakers. Department members and all students in the fourth year of the Major and Honours programs. Students are required to submit a literature research paper of up to 3,000 words as well as a condensed abstract and to deliver an oral presentation. Attendance and participation in either BIOC 480 or MICR 480 is required of all students. (Credit will not be given for both BIOC 480 and MICR 480.) Y (2-0)

#### **MICR 499 (3) UNDERGRADUATE THESIS**

Research under the direction of a faculty member. Open to Honours students only. (Credit will not be given for both BIOC 499 and MICR 499.)

## **GRADUATE COURSES**

Not all the following courses will be offered in a particular year. Students should consult the Department to determine the courses which will be offered this year.

### **BIOCHEMISTRY**

#### **BIOC 500 (3) BIOCHEMISTRY**

An advanced consideration of biological macromolecules. The detailed chemistry of nucleic acids and proteins as well as their contributions to supramolecular biological systems and their organization and interrelationships will be emphasized.

P.J. Romaniuk, A.T. Matheson, R.W. Olafson, J.T. Buckley

#### **BIOC 510 (1-3) TOPICS IN BIOCHEMISTRY**

An intensive consideration of recent advances in the discipline

- 510A Protein synthesis
- 510B Structure of nucleic acids
- 510C Cellular evolution
- 510D Experimental techniques in protein chemistry
- 510E Environmental biochemistry and toxicology
- 510F Biological membranes
- 510G Molecular immunology
- 510H Molecular genetics

#### **BIOC 570 (1-3) DIRECTED STUDIES IN BIOCHEMISTRY**

A wide range of biochemical topics will be available for assignments. Topics will be restricted to an analysis of recent advances. The student's

graduate adviser will not normally participate in directed studies taken for more than one unit of credit.

#### **BIOC 580 (1) SEMINAR**

Attendance and participation are required. Formal presentation of a major research topic in Biochemistry other than the student's own research will be required.

#### **BIOC 599 (credit to be determined) M.SC. THESIS: BIOCHEMISTRY** (Grading: INP, COM, N or F)

#### **BIOC 699 (credit to be determined) PH.D. DISSERTATION: BIOCHEMISTRY**

(Grading: INP, COM, N or F)

### **MICROBIOLOGY**

#### **MICR 500 (3) ADVANCED MICROBIOLOGY**

Molecular biology of the structure and metabolism of bacteria and viruses. Emphasis will be placed on integrative genetic and enzymological control mechanisms as they effect the morphogenesis, structure and metabolism of a wide variety of microorganisms.

W.W. Kay, T.J. Trust, E.E. Ishiguro

#### **MICR 510 (1-3) TOPICS IN MICROBIOLOGY**

An intensive consideration of recent advances in the discipline.

- 510A Metabolic regulation
- 510B Cell structure and function
- 510C Microbial pathogenicity
- 510D Bacterial membranes
- 510E Cellular immunology
- 510F Advanced microbial genetics
- 510G Biochemistry of antigens

#### **MICR 570 (1-3) DIRECTED STUDIES IN MICROBIOLOGY**

A wide range of microbiological topics will be available for assignment. Topics will be restricted to an analysis of recent advances. The student's graduate adviser will not normally participate in directed studies taken for more than one unit of credit.

#### **MICR 580 (1) SEMINAR**

Attendance and participation are required. Formal presentation of a major research topic in Microbiology other than the student's own research will be required.

#### **MICR 599 (credit to be determined) M.SC. THESIS: MICROBIOLOGY**

(Grading: INP, COM, N or F)

#### **MICR 699 (credit to be determined) PH.D. DISSERTATION: MICROBIOLOGY**

(Grading: INP, COM, N or F)

## **DEPARTMENT OF BIOLOGY**

Louis A. Hobson, B.S. (Humboldt St. Coll.), M.S., Ph.D. (Wash.), Associate Professor and Chairman of the Department  
 Michael J. Ashwood-Smith, B.Sc., M.Sc. (Durham), Ph.D. (London), Professor  
 Ralph O. Brinkhurst, B.Sc., Ph.D., D.Sc. (London), Adjunct Professor (1986-88)  
 Arthur T. Bergerud, B.Sc. (Ore. St.), M.Sc. (Wis.), Ph.D. (Brit. Col.), Adjunct Professor (1986-88)  
 Derek V. Ellis, B.Sc. (Edin.), M.Sc., Ph.D. (McGill), Professor  
 Arthur R. Fontaine, B.Sc. (McGill), D.Phil. (Oxon.), Professor  
 John S. Hayward, B.Sc., Ph.D. (Brit. Col.), Professor  
 George O. Mackie, B.A., M.A., D.Phil. (Oxon.), F.R.S.C., Professor  
 John N. Owens, B.S. (Portland St.), M.Sc., Ph.D. (Ore. St.), Professor  
 Robert G.B. Reid, B.Sc., Ph.D. (Glasgow), Professor  
 Jack R. Sutherland, B.Sc., M.Sc. (Ohio U.), Ph.D. (W. Virginia U.), Adjunct Professor (1986-88)  
 Robert Van Den Driessche, B.Sc. (N. Wales), M.Sc. (Tor.), Ph.D. (Wales), Adjunct Professor (1987-89)  
 Alan P. Austin, B.Sc., Ph.D. (Wales), Associate Professor  
 David J. Ballantyne, B.Com. (Brit. Col.), M.S. (Wash. St.), Ph.D. (Maryland), Associate Professor

Marcus A.M. Bell, B.S.F. (Brit. Col.), M.F. (Yale), Ph.D. (Brit. Col.), R.P.F., Associate Professor  
 A. Nigel Burdett, B.Sc. (Leicester), Ph.D. (Wales), Adjunct Associate Professor (1987-89)  
 Kenneth L. Denman, B.Sc. (Calgary), Ph.D. (Brit. Col.), Part Time Adjunct Associate Professor (1987-89)  
 Patrick T. Gregory, B.Sc. (Tor.), M.Sc., Ph.D. (Man.), Associate Professor  
 Jack L. Littlepage, B.A. (San Diego St. Coll.), Ph.D. (Stanford), Associate Professor  
 Joseph D. Lousier, B.Sc. (N.D.U. Nelson), M.Sc., Ph.D. (Calg.), Adjunct Associate Professor (1986-88)  
 David L. Mackas, B.S. (Wash.), Ph.D. (Dalhousie), Adjunct Associate Professor (1986-88)  
 John E. McInerney, B.Sc. (Ottawa), M.Sc., Ph.D. (Brit. Col.), Associate Professor  
 Edward H. Miller, B.Sc. (Alta.), M.Sc. (Cantab.), Ph.D. (Dalhousie), Adjunct Associate Professor (1986-88)  
 J. Paul L. Mohette, B.Sc. (Manit.), Ph.D. (A.N.U.), Adjunct Associate Professor (1987-89)  
 John W. Paden, B.S. (Calif.), M.S., Ph.D. (Idaho), Associate Professor  
 Dorothy H. Paul, B.A. (Radcliffe), Ph.D. (Stan.), Part Time Visiting As-

sociate Professor, Adjunct Associate Professor (1987-88)  
 Miles Paul, A.B. (Harvard), Dip. in Educ. (Makerere), Ph.D. (Stanford), Associate Professor  
 George S. Puritch, B.Sc. (U. of Vic.), M.S. (Mass.), Ph.D. (Aberdeen), Adjunct Associate Professor (1987-89)  
 Richard A. Ring, B.Sc., Ph.D. (Glasgow), Associate Professor  
 Stephen D. Ross, B.Sc. (Humboldt State), M.Sc., Ph.D. (Wash.), Adjunct Associate Professor (1986-88)  
 Nancy M. Sherwood, B.S. (Oregon), M.A., Ph.D. (U. of Calif. — Berkeley), Adjunct Associate Professor (1987-89)  
 E. Derek Styles, B.S.A. (Brit. Col.), Ph.D. (Wisc.), Associate Professor  
 John E. Webber, B.Sc. (Brit. Col.), Ph.D. (Ore. State), Adjunct Associate Professor (1986-88)  
 Geraldine Allen, B.Sc., M.Sc. (Brit. Col.), Ph.D. (Ore. St.), Assistant Professor and Curator of the Herbarium  
 Joseph A. Antos, B.S. (N. Illinois), M.A. (Montana), Ph.D. (Oregon State), Adjunct Assistant Professor (1987-89)  
 Alan E. Burger, B.Sc., B.Sc., Ph.D. (Cape T.), Adjunct Assistant Professor (1987-89)  
 Robert D. Burke, B.Sc., Ph.D. (Alta.), Assistant Professor  
 David R. Deyoe, B.S., M.S. (Ore. State), Ph.D. (U. of Missouri), Adjunct Assistant Professor (1986-88)  
 Donald S. Eastman, B.Sc. (Brit. Col.), M.Sc. (Aberdeen), Ph.D. (Brit. Col.), Adjunct Assistant Professor (1987-89)  
 Harry Hartmann, B.Sc., M.Sc. (McGill), Ph.D. (Guelph), Adjunct Assistant Professor (1987-89)  
 Richard J. Hebda, B.Sc. (McMaster), Ph.D. (Brit. Col.), Adjunct Assistant Professor (1987-89)  
 S. Kim Juniper, B.Sc. (Alta.), Ph.D. (Canterbury), Visiting Assistant Professor (1987-88)  
 Merlin Mei Lun Leong, B.Sc. (U. of Vic.), M.Sc., Ph.D. (Alta), Visiting Assistant Professor (1986-87)  
 Verena J. Tunncliffe, B.Sc. (McMaster), M.Phil., Ph.D. (Yale), Assistant Professor  
 Johannes P. Van Netten, B.Sc., Ph.D. (U. of Vic.), Adjunct Assistant Professor (1986-88)  
 Eleanor White, B.Sc., M.Sc. (Brit. Col.), Ph.D. (Swedish Univ. of Agric. Sciences), Adjunct Assistant Professor (1986-88)  
 Hamish D.W. Bridgman, C.D., B.Sc. (U. of Vic.), B.A., M.A. (Cantab.), Administrative Officer.  
 Cynthia Campbell, B.Sc., M.Sc. (Bristol), Senior Laboratory Instructor  
 A. Cathryn Corbett, B.Sc. (U. of Vic.), M.Sc. (Ore.), Cooperative Education Coordinator  
 Mary Dennis, M.S.A. (Brit. Col.), Senior Laboratory Instructor  
 Hans (Jack) F. Dietrich, Senior Scientific Assistant  
 Yousuf A. Ebrahim, M.Sc. (York), Senior Laboratory Instructor  
 Thomas A. Gore, Senior Scientific Assistant  
 Ralph B. Scheurle, B.Sc. (U. of Vic.), Senior Scientific Assistant  
 G. Beth Stevenson, B.A., M.A. (Brit. Col.), Senior Laboratory Instructor  
 Ian G. Thornton, B.Sc. (U. of Vic.), Senior Laboratory Instructor

## GRADUATE PROGRAMS

For information on studies leading to the M.Sc. and Ph.D. degrees, see page 217; for graduate courses, see page 48.

## GENERAL, MAJOR AND HONOURS PROGRAMS

Students have the opportunity to study biology at any of three levels of concentration, General, Major or Honours. B.Sc. Honours and Major programs are intended for those planning to become professional biologists. Both require a core of biology courses; corequisite courses in the other sciences and a selection of upper level courses suited to the interests of individual students. The Honours program requires undergraduates to undertake a research project including the writing and defence of an Honours thesis. Students intending to pursue research or continue their studies for M.Sc. or Ph.D. degrees should consider the Honours program. The distinctive character of B.Sc. or B.A. General programs is the breadth of course options possible. Students in these programs may wish to combine a concentration in Biology with one in another science area (B.Sc.) or an Arts area (B.A.). Such interdisciplinary programs may be advantageous to students considering a postgraduate degree in the health sciences or education.

## COOPERATIVE EDUCATION PROGRAM

Biology students registered in Major and Honours programs may wish to combine their academic programs with relevant and productive work experience in industry, business and government. The general concept and requirements of the Cooperative Education Program are given on

page 28 and specifics for the Faculty of Arts and Science are described on page 31.

Entry to the Biology Cooperative Program is restricted to students enrolled in an Honours or Major program in Biology and attending the University on a full time basis. To qualify for entry and continuation in the Cooperative Program a student must normally maintain a second class average in Biology courses and overall. In addition to academic grades, acceptance will also be based upon individual interest, abilities and aptitudes, and a formal interview. A student is required to complete satisfactorily at least four Work Terms, each of which will be recorded on the student's academic record and transcript (as COM, N or F). Details of Work Terms are recorded on the Record of Work Terms which is attached to the student's academic record and transcript. The first Work Term (following first year) is optional, but students are required to complete four of the following five scheduled Work Terms. A student may at any time transfer from the Biology Cooperative Program to a regular Biology Program.

Students transferring from other postsecondary institutions may apply to enter the Coop Program when applying for admission to the University of Victoria. The Biology Department does not normally permit students to gain credit by Work Term Challenge. Coop students interrupting their academic or Work Term program may apply for reinstatement in the Coop Program upon return to the University. Readmission is not guaranteed.

Applications and further information concerning the Cooperative Program in Biology may be obtained from the Department.

## BIOLOGY PROGRAMS

### B.Sc. HONOURS

Core	
BIOL 150	(3)
BIOL 200	(1½)
BIOL 203/204	(3)
BIOL 206/207	(3)
BIOL 251 (304, or STAT 251)	(1½)
BIOL 300/306	(3)
One of BIOL 309 or 343	(1½)
One of BIOL 305A/B or 331A/B	(3)
BIOL 455 or BIOL 400	(1½)
BIOL 460	(1)
BIOL 499	(3)
TOTAL	(25)
Minimum of 12 upper level Biology units chosen to complete program	(12)
Minimum no. of Biology units	(37)

### B.Sc. MAJOR

Core	
BIOL 150	(3)
BIOL 200	(1½)
BIOL 203/204	(3)
BIOL 206/207	(3)
BIOL 251 (304, or STAT 251)	(1½)
BIOL 300/306	(3)
BIOL 309 or 343	(1½)
One of BIOL 305A/B or 331A/B	(3)
BIOL 455, or 400	(1½)
TOTAL	(21)
Plus a minimum of 6 upper level Biology units chosen to complete program	(6)
Minimum no. of Biology units	(27)

All courses counting toward the 27 units of the Major and 37 units of the Honours program must be passed with grade C or better.

### Corequisites

Honours students must complete 18 units of corequisites chosen from the list of approved corequisites below.

Program must contain:

BIOC 200	(1½)
STAT 250	(1½)
Not less than 6 units of CHEM incl. 3 units of organic CHEM	(6)
Not less than 3 units of PHYS	(3)
Not less than 3 units of MATH & C SC	(3)
3 additional units from the list of Approved Corequisites	(3)
TOTAL	(18)

### Free Electives

TOTAL UNITS (61)

### Corequisites

Major students must complete 18 units of corequisites chosen from the list of approved corequisites below.

Program must contain:

BIOC 200	(1½)
STAT 250	(1½)
Not less than 6 units of CHEM incl. 3 units of organic CHEM	(6)
Not less than 3 units of PHYS	(3)
Not less than 3 units of MATH & C SC	(3)
3 additional units from the list of Approved Corequisites	(3)
TOTAL	(18)

### Free Electives

TOTAL UNITS (60)

**Approved Corequisite Courses:** Students should obtain advice in selecting appropriate corequisite courses. They should also check individual Departmental Calendar entries for prerequisites.

MICR 200	GEOL 100	PHYS 102
BIOC 300	GEOL 201	PHYS 100
CHEM 100	CSC 110	PHYS 110
CHEM 101	CSC 112	PHYS 120
CHEM 102	CSC 115	PHYS 210
CHEM 140	CSC 160	PHYS 214

CHEM 213	CSC 200	PHYS 215
CHEM 231	MATH 100	PHYS 216
CHEM 232	MATH 101	PHYS 217
CHEM 235	MATH 102	PHYS 220
CHEM 245	MATH 151	
	STAT 251	

**B.Sc. GENERAL**

BIOL 150 (3)  
6 units  
of 200 level Biology  
courses  
9 units  
of acceptable Biology  
courses numbered  
300 and above  
BIOL units (18)

**Corequisites**

Any combination  
of PHYS 100, 110,  
120, 220 or 102 (3)  
CHEM 100/102, 101/  
102 or 140/145 (3)  
MATH 100/101 or 102/151  
or equivalent (3)

**B.A. GENERAL**

BIOL 150 (3)  
6 units  
of 200 level Biology  
courses (6)  
9 units  
of acceptable Biology  
courses numbered  
300 and above (9)  
BIOL units (18)

**Corequisites**

CHEM 100/102, 101  
102 or 140/145 (3)

The following table outlines a suggested timetable for Honours, Major and General Programs in Dept. of Biology. Students are encouraged to seek advice from Biol. Dept. advisers. The electives referred to consist of free electives, BIOL corequisites, and courses from the list of Approved Corequisite Courses, above.

Honours	Major	General
First year	First year	First year
BIOL 150 (3)	BIOL 150 (3)	BIOL 150 (3)
CHEM Coreq. (3)	CHEM Coreq. (3)	CHEM 100/102, 101/102 or 140/145 (3)
PHYS (3)	PHYS (3)	Electives (9)
MATH Coreq. (3)	MATH Coreq. (3)	Electives (9)
Electives (3)	Electives (3)	Electives (9)
(15)	(15)	(15)
Second year	Second year	Second year
BIOC 200/ BIOL 200 (3)	BIOC 200/ BIOL 200 (3)	BIOL 203/204 (3)
BIOL 203/204 (3)	BIOL 203/204 (3)	BIOL 206/207 (3)
BIOL 206/207 (3)	BIOL 206/207 (3)	Electives (9)
CHEM Coreq. (3)	CHEM Coreq. (3)	
STAT 250/ BIOL 251 (3)	STAT 250/ BIOL 251 (3)	
(15)	(15)	(15)
Third year	Third year	Third year
BIOL 300/306 (3)	BIOL 300/306 (3)	300 level BIOL courses with above (9)
BIOL 305A/B or 331A/B (3)	BIOL 305A/B or 331A/B (3)	Electives (6)
BIOL 309 or 343 (1½)	BIOL 309 or 343 (1½)	
Electives (4½)	Electives (7½)	
Language (3)		
(15)	(15)	(15)
Fourth year	Fourth year	
BIOL 455 or 400 (1½)	BIOL 455 or 400 (1½)	
BIOL 460 (1)		
BIOL 499 (3)		
Electives (10½)	Electives (13½)	
(16)	(15)	

**Departmental Advisers:**

Geraldine A. Allen	- Plant systematics, Evolution
Michael J. Ashwood-Smith	- Toxicology
Alan P. Austin	- Aquaculture, Algae, Environment
David J. Ballantyne	- Plant Physiology
Marcus A.M. Bell	- Ecology, Botany
Robert D. Burke	- Developmental Biology, Cell Biology
Derek V. Ellis	- Marine Environmental Science, Behaviour, Taxonomy
Arthur R. Fontaine	- Marine Biology, Invertebrate Functional Morphology
Patrick T. Gregory	- Terrestrial Animal Ecology, Herpetology
John S. Hayward	- Environmental Physiology, Comparative Animal Physiology
Louis A. Hobson	- Oceanography, Algal Physiology

Jack L. Littlepage  
George O. Mackie  
John E. McInerney  
John N. Owens  
John W. Paden  
Miles Paul  
Robert G.B. Reid  
Richard A. Ring

- Oceanography, Plankton Biology  
- Neurobiology  
- Vertebrate Zoology, Biology of Fishes  
- Botany, Forest Biology  
- Mycology, Plant Pathology  
- Developmental Biology  
- Physiology of Marine Invertebrates  
- Entomology, Biology Cooperative  
Education Program  
- Genetics  
- Ecology, Marine Biology

E. Derek Styles  
Verena Tunnicliffe

**NOTES**

BIOL 150 or equivalent is prerequisite to all courses for Major and Honours Programs in the Department unless otherwise stated in course descriptions. Students who have credit for Biology 11 and 12 or who have passed BIOL 101 with a grade of B+ or better may enroll in courses for which 150 is prerequisite. Students having credit only in Biology 11 and intending to major in Biology should take 150. Students having only Biology 11 may, under special circumstances, bypass 150 with permission from the Biology Department. Counselling on this matter may be obtained from Biology Department advisers.

Students who bypass 150 should take two courses selected from 203, 204, 206, and 207 in their first year and, in their second year, the remaining two of these courses plus 300 and 306. They must choose an additional three units of upper level BIOL electives to be taken in their third or fourth year.

Students considering going on to professional schools, e.g. Medicine, Dentistry, Veterinary Science, etc. should include those Science, Math and English courses prerequisite to entry into professional school. Three units of Physics are required for most first year preprofessional programs (Medicine, Optometry, Pharmacy, Home Economics (Nutrition) and Forestry). Intending professional students are advised to include 3 units of Physics in their first year program.

The provision exists for students who have taken their first three years at the University of Victoria to be granted a B.A. or B.Sc. from the University of Victoria after at least one year of a professional undergraduate program (see p.32). Biology students contemplating entry into medicine after the third year should consult with the Department.

Students considering a teaching career are advised to consider the following programs: for Senior Secondary level, a B.Sc. Combined Major or Honours program in two subject areas and including both Animal (305A&B) and Plant (331A&B) Physiology; Junior Secondary School and Elementary level, a B.Sc. or B.A. General program. Details of post-graduate requirements for teacher certification (e.g. professional year program) are given under the Faculty of Education.

Students taking the BIOC 200 (1½) and BIOL 200 (1½) sequence of courses may count 1½ units for BIOC 200 towards the minimum of 6 units of 200 level Biology required for a B.Sc. General or B.A. General degree.

Because of the importance of biometrics in most biological work, students in biology programs may want to consider taking additional statistics courses as electives. It is recommended that students take at least MATH 233A, STAT 253, 354, and 453, in addition to required courses. Additional suggestions are MATH 233B, STAT 350/351 and 454. Note that STAT 350/351 would require the student to take MATH 100/101 instead of MATH 102/151 as required courses, and also MATH 200/201. Students are further advised to take courses in Computer Science as early as possible; C SC 200 is recommended. Students taking BIOL 251 (formerly 304) instead of STAT 251 may be admitted, with permission, to upper level statistics courses, but STAT 251 is advised for students planning to take such courses.

Students may be required to meet part of the expenses involved in required field trips.

**HONOURS**

Honours students should complete the program of required courses and Biology electives as described for the Major, and in addition should take 460 (1) and 499 (3) in their fourth year. Of the remaining 9 units to complete the 61 unit degree requirement, at least 3 units must be from an additional course(s) in Biology chosen in consultation with the Department.

Prospective Honours students should first discuss their proposed thesis research with a faculty member and obtain the member's consent to serve as thesis supervisor. They should then apply in writing to the Chairman of the Department for admission to the Honours program before May 1 in the third year of studies. However, under special circumstances applications will be accepted up to the end of fall registration the fourth year of studies. The completed thesis will be examined by a small

committee including the supervisor. Applicants should have and maintain a grade point average of at least 6.00 in all Department courses.

First Class Honours will be awarded to students obtaining a first class average in 300 and 400 level courses, and must include first class standing in 499. Second Class Honours will be awarded to students obtaining a second class average in 300 and 400 level courses, and must include at least second class standing in 499. A student who obtains a first class average in the 300 and 400 level courses but second class standing in 499 will have the option of receiving a B.Sc. with a First Class Major in Biology or Second Class Honours. A student who achieves lower than second class standing in 499 will graduate under the Major program provided the student satisfies other requirements for the degree.

The submission date for the thesis is the last day of lectures.

Proficiency in more than one language is often required in graduate studies. Students planning graduate work are encouraged to elect one or two language courses.

## BIOLOGY COURSES FOR NONBIOLOGISTS

The Biology Department offers several courses for students not undertaking an undergraduate program in Biology. These courses cover areas of Biology of general interest and relevance. BIOL 101 is a course of broad scope that may serve as useful preparation to the other courses. Courses in this category include 101, 310, 320, 334, 338 and 400. Certain other courses may be taken with permission of instructor.

## UNDERGRADUATE COURSES

### BIOLOGY

Students should consult the Department concerning courses offered in a particular year.

NOTE: 150 or equivalent is normally prerequisite to all other courses in the Department except where otherwise stated. For information concerning acceptable equivalents see Notes, page 41.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### BIOL 101 (3) CONTEMPORARY BIOLOGY AND MAN

Biological principles viewed from the human perspective emphasizing current developments of significance to individuals and society. Topics range over relevant aspects of cell biology, genetics, development, behaviour, evolution, ecology, applied biology and human biology. Guest speakers from the professional community outside the Department of Biology contribute significantly to the presentations. Laboratory/tutorials complement lecture material and include some practical experience, demonstrations, field trips and student projects. (This course is not intended for Biology Majors; see Notes p.41)

A.R. Fontaine, Coordinator

Y(3-0-3)

### BIOL 150 (3) PRINCIPLES OF MODERN BIOLOGY

A broad introduction to biological science emphasizing the principles of cell biology, bioenergetics, physiology, genetics, evolution and ecology. The major plant and animal groups are surveyed, stressing diversity through adaptation. This course is designed primarily for those intending to make the biological sciences a major area of study. (See Notes, page 41)

Y(3-3)

### BIOL 200 (1½) INTRODUCTION TO CELL STRUCTURE AND FUNCTION

Evolution of the cell; how cells are studied; the plasma membrane; cell-cell adhesion; extracellular matrix; synthesis of macromolecules; the nucleus; mitochondria; chloroplasts; cytoskeleton; cell movement; cell growth; germ cells; fertilization; differentiation; chemical signalling; intracellular regulatory processes; immune system. (See BIOC 200) (*Pre-or corequisites*: CHEM 231 or 230 or 233. *Prerequisite*: BIOC 200 or permission of the instructor)

M. Paul

SK(3-3)

### BIOL 203 (1½) NONVASCULAR PLANTS

The biology of algae, fungi, lichens and bryophytes will be studied, including discussions of their origins, evolution, ecology, physiology and use by man. Laboratories will include examination of plants from our local flora whenever possible and field trips will be arranged. F(3-3)

### BIOL 204 (1½) VASCULAR PLANTS

A survey of the vascular plants including ferns and fern allies, conifers and other gymnosperms, and flowering plants. Cell structure and tissues

of vascular plants will be discussed as they relate to plant function. The origin and evolution of plant structures and groups making up the metaphyta will be emphasized. Laboratory studies will emphasize local plants and field trips will be arranged.

G.A. Allen

S(3-3)

### BIOL 206 (1½) INVERTEBRATE ZOOLOGY

Survey of invertebrate animals, including taxonomy, morphology, life histories and phylogeny.

A.R. Fontaine

F(3-3)

### BIOL 207 (1½) CHORDATE ZOOLOGY

A survey of chordate diversity in an evolutionary perspective. Emphasis is on the comparative morphology of organ systems. Laboratory work involves dissections of representative specimens, and a term report is required.

J.S. Hayward

S(3-3)

### BIOL 250 (formerly half of 304)(1½) BIOMETRICS

Elementary statistics for biology students. Topics include variables and frequency distributions, probability, sample statistics and confidence limits, hypothesis testing, two sample tests, introduction to chi-square tests. Weekly exercises in laboratory classes; take home problem sets also assigned. (NOTE: Credit cannot be obtained for both STAT 250 and BIOL 250)

NO(2-3)

### BIOL 251 (formerly 304) (1½, formerly 3) BIOMETRICS

Introduction to experimental design, sampling, and data analysis for biologists. Topics include chi-square analyses, analysis of variance designs, regression and correlation, and nonparametric tests; the course deals mainly with univariate statistics, but multivariate methods are discussed briefly. Laboratory classes include tutorials and projects involving planning and carrying out surveys or experiments designed to test specific hypotheses; take home problem sets are also assigned. (*Prerequisite*: 250 or STAT 250) (Credit cannot be obtained for both STAT 251 and BIOL 251)

P.T. Gregory

S(2-3)

### BIOL 260 (3) BIOLOGY OF MARINE INTERTIDAL ORGANISMS (Field and Laboratory Studies)

A descriptive course surveying the flora and fauna of local marine intertidal habitats. Studies to include general aspects of marine intertidal ecology, together with morphology, life history and natural history of plants and both invertebrate and vertebrate animals. Field trips and laboratory studies of live organisms form an integral part of this course. (Credit for this course will not be counted toward degree programs in Biology.) (*Prerequisite*: Grade 12 Biology or permission of instructor)

Y. Ebrahim

(Offered in Summer Session Only)

### BIOL 300 (1½) GENETICS

Nature and function of the genetic material. Reproduction and heredity in eukaryotes and prokaryotes. Classical concept of the gene. Genetic control of biochemical reactions, differentiation and development. Population genetics and evolutionary mechanisms. (Students are strongly advised to delay taking 300 until after they have successfully completed 200, Cell Biology.) (*Pre-or corequisite*: 200.)

E.D. Styles

S(3-2)

### BIOL 301A (1½) (formerly half of 301) INVERTEBRATE ADAPTATIONS

An advanced course emphasizing adaptations of invertebrates and principles of functional morphology. The lectures are organized in functional blocks, such as: feeding and nutrition, respiration, excretion, behaviour, coordination and reproduction. Taxonomy is not emphasized. Laboratory exercises include introduction to techniques, individual projects in functional morphology, and surveys of adaptive radiation of major invertebrate groups. (Students are required to participate fully in field trips) (*Prerequisite*: 206)

NO(2-3)

### BIOL 301B (1½) (formerly half of 301) INVERTEBRATE ADAPTATIONS

An advanced course emphasizing adaptation of invertebrates and principles of functional morphology. The lectures are organized in functional blocks, such as: feeding and nutrition, respiration, excretion, behaviour, coordination and reproduction. Taxonomy is not emphasized. Laboratory exercises include introduction to techniques, individual projects in functional morphology, and surveys of adaptive radiation of major invertebrate groups. (Students are required to participate fully in field trips) (*Prerequisite*: 206)

NO(2-3)

**BIOL 305A (1½) (formerly half of 305) ANIMAL PHYSIOLOGY**

An evolutionary survey of animal function. The following systems will be examined comparatively: energetic and thermoregulatory, neuromuscular, endocrinal, and circulatory. Laboratory includes study of live animals. (*Prerequisites*: 200, 206 and 207 or permission of instructor) (305A and 305B may be taken in any order)

J.S. Hayward S(2-3)

**BIOL 305B (1½) (formerly half of 305) ANIMAL PHYSIOLOGY**

An evolutionary survey of animal function. The following systems will be examined comparatively: nutritional, digestive, respiratory, osmoregulatory and excretory. Laboratory includes study of live animals. (*Prerequisites*: 200, 206 and 207 or permission of instructor) (305A and 305B may be taken in any order)

R.G.B. Reid F(2-3)

**BIOL 306 (ES 310) (1½) ECOLOGY**

A survey of populations, communities, ecosystems, and the general principles of ecology. Laboratories will deal with both field and experimental aspects of ecology. Simple statistical techniques and computer packages will be used. (Biology honours and major students should take this course in conjunction with 300.)

P.T. Gregory, G.A. Allen, D.V. Ellis F(2-3-1)

**BIOL 308 (1½) ANIMAL HISTOLOGY**

Lectures and laboratories will explore the fundamentals of animal tissues and cell structure. Tissue specializations of major vertebrate organ systems will be examined and comparisons made throughout the animal kingdom. Students will gain experience in recognizing and describing various tissues and be exposed to the analysis of structure/function relationships (Major and Honours students are advised to take this course together with 309, 305A and/or 305B. Credit will not be given for this course and 302.)

R.D. Burke S(3-3)

**BIOL 309 (1½) DEVELOPMENTAL ZOOLOGY**

Animal development and the mechanisms that control it. Introductory embryology of vertebrates and invertebrates will be coordinated with the analysis of developmental processes. Topics considered will include gametogenesis, fertilization, cleavage, embryogenesis, organogenesis, cellular differentiation, growth, metamorphosis, regeneration. (*Prerequisites*: 200, 206 and 207 or permission of the instructor)

M. Paul F(2-3)

**BIOL 310 (3) ELEMENTS OF OCEANOGRAPHY**

A nontechnical course designed to give the general student a broad background in oceanography. Lectures will cover origin and extent of the oceans, nature of the sea bottom, causes and effects of tides, waves and currents, animal and plant life in the sea, pollution and utilization of the oceans by man. (Open to all students in second, third and fourth year. 150 is not required for this course. Credit for this course will not be counted toward degree programs in Biology. Students planning to proceed to other courses in Oceanography must take 311A and 311B. Credit will not be given for both 310 and 311A or 311B.)

J.L. Littlepage Y(3-0)

**BIOL 311A (1½) (formerly half of 311) AN INTRODUCTION TO PHYSICAL AND GEOLOGICAL OCEANOGRAPHY**

This course provides an introduction to atmospheric and oceanic heat budgets, distributions of temperature, salinity and density in the oceans, ocean circulation, ocean waves, interactions between waves and coastal margins and the structure and evolution of sea floors. (Lectures will be supplemented by laboratory experience. Participation in one single-day cruise is expected.) (Credit will not be given for both 310 and 311A.) (*Prerequisites*: Third year or higher standing; two of PHYS 100, 110, 120, and 220; MATH 100/101 or 102/151)

L.A. Hobson F(2-3)

**BIOL 311B (1½) (formerly half of 311) AN INTRODUCTION TO CHEMICAL AND BIOLOGICAL OCEANOGRAPHY**

This course provides an introduction to the effects of geological and biological processes on the chemical composition of seawater and to the dynamics of phytoplankton and zooplankton populations in the sea based on their ecological, physiological and behavioural characteristics. (Lectures will be supplemented by laboratory experience. Participation in two single-day cruises is expected.) (Credit will not be given for both 310 and 311B.) (*Prerequisites*: third year or higher standing; 311A, 203 and 206; CHEM 100/102 or 101/102 or 140/145)

L.A. Hobson S(2-3)

**BIOL 312 (1½) INTRODUCTORY ENTOMOLOGY**

An introduction to the morphology, physiology, taxonomy and biology of insects, and some consideration of their economic importance. A term essay and a representative collection of 75 species of insects will be required before completion of the course. The specimens should be mounted, identified and presented as a museum collection. Obtain instructions in the summer preceding the course. Field collecting trips will be arranged wherever possible. (Students proceeding in Entomology are advised to take this course in conjunction with 313.) (*Pre-or corequisite*: 206) Text: Borror and Delong, *An Introduction to the Study of Insects*. (5th ed.)

R.A. Ring F(2-3)

**BIOL 313 (1½) ECONOMIC ENTOMOLOGY**

A study of man's greatest competitors for food and resources. Insects and arachnids of medical, household, stored products, horticultural, agricultural and forestry importance will be discussed. The course will deal to a great extent with the variety of measures available for pest control. (*Prerequisite*: 150 or written permission of instructor) Texts: Assigned readings

R.A. Ring F(2-2)

**BIOL 314A (1½) (formerly half of 314) MARINE FIELD BIOLOGY**

Introduction to methods and concepts of marine biological investigation. Description and comparison of species associations, spatial and temporal distribution patterns, food networks, species life strategies and assessment of environmental impact. Field emphasis will be on rocky shore and algal forest ecosystems. The laboratory will emphasize accuracy in species identification. (*Prerequisite*: 206. *Pre-or corequisites*: 306, 203) Text: Carefoot, T., *Pacific Seashores*

D.V. Ellis F(2-3)

**BIOL 314B (1½) (formerly half of 314) MARINE FIELD BIOLOGY**

Introduction to methods and concepts of marine biological investigation. Description and comparison of species associations, spatial and temporal distribution patterns, food networks, species life strategies and assessment of environmental impact. Field emphasis will be on beach and infaunal ecosystems. The laboratory will emphasize quantitative procedures, sampling design and numerical analysis. (Students will operate an IBM PC. Instructional sessions will be arranged during the 2nd and 3rd weeks of the course.) (*Prerequisite*: 206. *Pre- or corequisites*: 306, 250 or STAT 250)

NO(3-0)

**BIOL 317 (1½) INTRODUCTION TO PLANT PATHOLOGY**

An introduction to current principles and practice of plant and forest pathology; diseases incited by bacteria, fungi, viruses, nematodes, and physiological factors will be presented and discussed. Mechanisms of infection, disease development, host-parasite relations, and disease spread will be considered. Control practices including chemical and biological control, exclusion, and host resistance will be discussed. Laboratories to consist of isolation and identification of pathogens, inoculation and observation of disease development. Field trips to Federal and Provincial laboratories are required. (*Prerequisites*: 203/204, CHEM 231; 331 recommended) (To alternate with 416)

J.W. Paden S(2-3)

**BIOL 318 (1½) SYSTEMATICS OF FLOWERING PLANTS**

An introduction to systematics of angiosperms; classification; identification; rules of nomenclature; the major groups of flowering plants; species concepts and speciation; experimental approaches to systematics, with examples from selected groups. (NOTE: A well prepared collection of 25 properly identified plants must be submitted for completion of the course. Students are urged to make their collections during the preceding summer. Contact the instructor for details and collecting equipment as early as possible.) (*Prerequisite*: 204 or written permission of the instructor; 300 recommended)

G.A. Allen S(2-3)

**BIOL 320 (1½) GENETICS AND EVOLUTION**

Concepts of evolution and genetics that are of particular interest to present day society. The origin of life; evolutionary forces; genetic systems; gene environment interactions; the genetics of man; genetics and man. Demonstration lessons will be arranged. (Open to non-Biology and general program Biology students, Biology honours and major students should register for 300. Credit will not be given for both 300 and 320.) (*Prerequisites*: At least second year standing with an introductor course in Biology or written permission of instructor)

E.D. Styles F(3-0)

**BIOL 329 (1½) BIOLOGY OF THE VERTEBRATES**

The course consists of two sections. The first introduces principles of systematics and evolution, using vertebrates as examples. The second introduces principles of wildlife management. Considerable outside reading is required and class discussions are held regularly. Laboratory classes emphasize identification of native vertebrate species of British Columbia and introduce techniques of specimen preparation. Field trips are taken when possible. (*Prerequisites*: 207 or written permission of Department)

P.T. Gregory

F(2-3)

**BIOL 331A (1½) (formerly half of 331) PLANT PHYSIOLOGY**

The following topics will be discussed: photosynthesis, water relations, mineral nutrition and ion uptake, translocation, stress physiology. (*Pre-or corequisites*: 200, 203, and 204; CHEM 231 (or 230 or 233) or written permission of the instructor) Text: Salisbury and Ross, *Plant Physiology*

D.J. Ballantyne

F(2-3)

**BIOL 331B (1½) (formerly half of 331) PLANT PHYSIOLOGY**

The following topics will be discussed: enzymes, carbohydrates, respiration, nitrogen metabolism, lipids, lignins, pigments, phytohormones, tropisms, dormancy, senescence, flowering. (*Pre-or corequisites*: 200, 203, and 204; CHEM 231 (or 230 or 233) or written permission of the instructor) Text: Salisbury and Ross, *Plant Physiology*

D.J. Ballantyne

S(2-3)

**BIOL 334 (1½) PLANTS AND MAN**

An introduction to economically important plants and their products, especially as sources of food, shelter, clothing, drugs and industrial raw materials. Aspects of plant growth and development, physiology, breeding and disease will be discussed for important agricultural and forest plants. Demonstrations will be arranged. (Open to all students in second, third and fourth years. BIOL 150 is not required for this course. Normally credit for this course will not be counted toward degree programs in Biology, but Biology students may take this course as a free elective.) Texts: Assigned Readings; General Reference: Janick, Schery, Woods and Ruttan, *Plant Science*, or Simpson and Conner — Ogorzaly, *Economic Botany*

D.J. Ballantyne, J.W. Paden, E.D. Styles

F(3-0)

**BIOL 338 (1½) APPLIED PLANT PHYSIOLOGY**

Application of principles of plant physiology to problems in agriculture, forestry, and air pollution. (Normally, credit for this course will not be counted toward degree programs in Biology, but Biology students may take this course as a free elective.) (*Prerequisites*: One of 150, 200, 204, or 334 or permission of instructor)

D.J. Ballantyne

S(3-0)

**BIOL 343 (1½) DEVELOPMENTAL PLANT ANATOMY**

A study of the origin and development of cells, tissues and organs in vascular plants with special emphasis given to seed plants. The mature structures are discussed as they relate to function. Recent studies of plant ultra-structure are considered in view of development and function. (Not open to students who have 3 units credit for 342.) (*Prerequisite*: 204)

Texts: Esau, *Anatomy of Seed Plants*

J.N. Owens

F(2-3)

**BIOL 344 (1½) PLANT MICROTECHNIQUE**

A study of the techniques used to investigate structural aspects of plant growth, development and function. Techniques covered include paraffin methods, wood sectioning, maceration, clearing, chromosome preparations, photomicrography, histochemistry and autoradiography. (*Prerequisite*: 204) Text: Berlyn and Miksche, *Botanical Microtechnique and Cytochemistry*

NO(2-3)

**BIOL 345 (formerly 444) (1½) ANIMAL BEHAVIOUR**

An introduction to animal behaviour emphasizing the range of functional patterns and critically assessing analogies with human behaviour. Practical studies to develop observational and descriptive skills are assigned, and there will be a number of class field trips. Text: Ellis, *Animal Behaviour, and its Applications*

D.V. Ellis

F(3-3)

**BIOL 350 (1½) PALEOBIOLOGY**

A biological perspective on the origins and development of life designed to give an historical basis to modern processes. Includes study of major events in plant and animal evolution, patterns in the fossil record, paleoecology and the paleobiology of British Columbia. (*Prerequisites*: 203, 204, 206, and 207)

NO(3-0)

**BIOL 400 (1½) HISTORY OF BIOLOGY**

A study of the historical development of the major techniques and ideas of biology. The significance of the important historical contributors to biology will also be considered. Open to third and fourth year students. (*Prerequisite*: 150 or permission of the Department) Texts: Assigned readings

R.G.B. Reid

S(3-0)

**BIOL 401A (1½) (formerly half of 401) LABORATORY APPLICATION OF GENETIC PRINCIPLES**

Students will undertake breeding experiments with plants and mice, and breeding, selection and population experiments with *Drosophila*. Cytogenetic, photographic, chromatographic, and other analytical techniques will be employed. (*Prerequisite*: 300)

E.D. Styles

F(1-3)

**BIOL 401B (1½) (formerly half of 401) APPLICATION OF GENETIC PRINCIPLES**

Topics to be discussed include: factors affecting the direction of genetic research, potential uses of recombinant DNA techniques for research, medicine and agriculture, genetics of disease resistance, genetics of aging and behaviour, effects of genetic screening and counselling, prenatal diagnosis and genetic diseases. (*Prerequisite*: 300)

E.D. Styles

S(3-0)

**BIOL 405 (3) CELLULAR PHYSIOLOGY**

Lectures and seminars on recent advances in cellular physiology. Laboratory modules in:

(a) Cell and tissue culture

(b) Application of radioisotopes to biology

(c) Fractionation of subcellular components, electron microscopy.

(*Prerequisites*: 200 and BIOC 200. *Pre-or corequisite*: BIOC 300, or permission of Department. Restrictions on equipment limit enrollment to a maximum of 10 students. Consultation with instructor suggested prior to registration)

M.J. Ashwood-Smith

Y(2-3)

**BIOL 406 (1½) INTRODUCTION TO PLANT GENETIC ENGINEERING**

Lecture topics include: consideration of plant and comparative genomic organization, hybridization studies of DNA and RNA, cell free translation systems for mRNAs, DNA cloning strategies, gene mapping techniques, genetic manipulation. (*Prerequisites*: 200 and BIOC 200. *Pre-or corequisite*: 300 or MICR 302 or permission of the instructor.)

M. Leong

F(3-0)

**BIOL 407 (1½) AQUACULTURE**

An introduction to ecologically based management strategies for the cultivation or enhancement of aquatic plants and animals; traditional and current practices will be considered together with the potential for future development and the environmental impacts of aquaculture. (*Prerequisites*: Fourth year standing or permission of the instructor)

A.P. Austin

F(3-3)

**BIOL 408 (1½) THE BIOLOGY OF POLLUTION**

Biological concepts and methods applied to the recognition, definition and measurement of excessive environmental alteration directly or indirectly affecting world biota including man; exploration of contributions of bioscience to human perception of, and response to, the stimulus of environmental perturbation. Field and laboratory observation on organisms stressed by various levels of environmental change; one project report and attendance at seminars by visiting speakers. (*Pre-or corequisite*: 206 or 203, or written permission of instructor) Texts: Current Literature

A.P. Austin

S(2-3)

**BIOL 409A (formerly part of 409) (1½) NEUROBIOLOGY**

Cellular and developmental aspects of the nervous system, regeneration, trophic effects, connective specificity, the nerve impulse, essentials of sensory physiology and motor control, junctional transmission, pattern generation, principles of higher receptor organization and central nervous circuitry. Course consists of lectures with oral and written presentations by the students on selected topics. (*Prerequisite*: 305A and 305B) (Enrollment limited to 26 students. Preference given to students planning to take 409B)

G.O. Mackie

F(3-0)

**BIOL 409B (formerly part of 409) (1½) NEUROBIOLOGY LAB**

Students will dissect and stain peripheral and central nervous systems and use intracellular markers to examine neuroanatomy and neuronal

morphology. They will use electrophysiological techniques for extra- and intracellular recording and stimulation to study aspects of sensory, central nervous system, and neuromuscular physiology. Results will be considered in terms of principles of neurobiology in class discussions and in lab reports. Laboratory is open at all times and students are encouraged to work on their own in addition to the scheduled hours. (*Prerequisite*: 409A) (Enrollment limited to 8 because of space and equipment)  
D. Paul S(1-4)

#### BIOL 410 (1½) HERPETOLOGY

The biology of amphibians and reptiles, particularly evolutionary relationships, systematics, ecology, and physiology. This course addresses general principles, using amphibians and reptiles as examples. Emphasis also is given to adaptation of ectotherms to seasonally cold environments such as those in Canada. Students are expected to present seminars on special topics and do considerable outside reading. Laboratory classes consist mainly of taxonomic identifications. Field trips are taken when possible. (*Prerequisites*: 207 and 306; *pre- or corequisite*: 455, or permission of instructor)  
P.T. Gregory S(2-3)

#### BIOL 411A (1½) (formerly half of 411) MARINE AND FRESHWATER ALGAE (PHYCOLOGY)

A comprehensive exploration of both marine and freshwater algae (macro and micro forms) emphasizing ecological, ecophysiological, morphological, environmental impact and aquacultural economic aspects. Field work centres upon live materials from local aquatic communities with emphasis on Cyanobiota, Rhodobiota, and Phaeophyta and includes shipboard work in coastal and freshwater environments. Laboratory work includes necessary microtechnique, photomicrography and taxonomic identification and some ecological or cultural projects. (*Prerequisite*: 203 or permission of instructor) Text: Bold & Wynne, *Introduction to Algae*  
A.P. Austin F(2-3)

#### BIOL 411B (1½) (formerly half of 411) MARINE AND FRESHWATER ALGAE (PHYCOLOGY)

A comprehensive exploration of both marine and freshwater algae (macro and micro forms) emphasizing ecological, ecophysiological, morphological, environmental impact and aquacultural economic aspects. Field work centres upon live materials from local aquatic communities with emphasis on Chlorobiota, diatoms, dinoflagellates, and the phytoplankton. Use will be made of the Simpson Cowichan Lake Field Station and work will be done on open Pacific coastal biota. (*Prerequisite*: 203 or permission of the instructor) Text: Bold & Wynne, *Introduction to Algae*  
A.P. Austin S(2-3)

#### BIOL 412 (1½) ADVANCED ENTOMOLOGY

A study of recent advances in the field of entomology with special emphasis on insect physiology. Students will set up and conduct many of their own experiments, and will be expected to become familiar with the recent literature from leading journals of insect physiology. Both a seminar presentation and laboratory term projects will be required. (*Prerequisite*: 312)  
R.A. Ring S(2-3)

#### BIOL 415A (1½) (formerly half of 415) MYCOLOGY

Morphology and biology of the fungi. Basidiomycota, zoosporic fungi and Gymnomycota will be treated. A collection of at least 25 genera of fungi will be required for the completion of the course. (*Prerequisite*: 203 or permission of the instructor. Not normally open to second year students) Text: Alexopoulos, C.J., *Introductory Mycology*, Ed. 3  
J.W. Paden F(2-3)

#### BIOL 415B (1½) (formerly half of 415) MYCOLOGY

Morphology and biology of the fungi. Zygomycotina, Ascomycotina, and Deuteromycotina will be treated. A research project, on any area of mycology, will be required for completion of the course. (*Prerequisite*: 203 or permission of the instructor. Not normally open to second year students) Text: Alexopoulos, C.J., *Introductory Mycology*, Ed. 3  
J.W. Paden S(2-3)

#### BIOL 416 (1½) FOREST PATHOLOGY

An introduction to parasitic and nonparasitic forest tree diseases, including the impact of disease on forest ecosystems, with particular emphasis on the Pacific Northwest. Methods of forest disease study will be considered. Other topics include disease management and control including biological control and the importance of mycorrhizae in the

limitation of disease development. (*Prerequisites*: CHEM 231; 331 and 343 recommended) (To alternate with 317)  
NO(2-3)

#### BIOL 417 (1½) ZOOLOGICAL MICROTECHNIQUE

Lectures and laboratories introducing the principles and methods of microtechnique commonly used by zoologists. Topics include: paraffin embedding, sectioning and staining, plastic embedding and semithin sectioning; frozen sections, fluorescent microscopy, introduction to histochemistry; optical microscopy; microscopic measuring; photomicrography. Students will submit their microscopic preparations and photomicrographs for evaluation. (*Pre- or corequisites*: CHEM 230 or 233 or 231/232 or 232/235, BIOC 200, BIOL 200; or permission of the instructor)  
A.R. Fontaine F(1-4)

#### BIOL 418A (1½) (formerly half of 418) VEGETATION ECOLOGY:I

A consideration of the structure, composition and dynamics of terrestrial plant communities, with emphasis on vegetation sampling, description, classification and ordination. (Considerable field work is involved including a weekend field trip in September, costs for which are borne largely by the class.) (*Prerequisite*: 306; 318 recommended)  
M.A.M. Bell F(2-4)

#### BIOL 418B (1½) (formerly half of 418) VEGETATION ECOLOGY:II

A study of the relationship between terrestrial vegetation and its environment, emphasizing soils, climate, and other organisms including man, with relevance to vegetation management. A major research project on local communities will comprise most of the lab requirement. (Costs of one weekend field trip in January will be borne by the class.) (*Prerequisite*: 418A or comparable experience. Students are encouraged to consult the instructor)  
M.A.M. Bell S(2-4)

#### BIOL 419 (1½) COMPARATIVE HISTOLOGY

Lectures and laboratories designed to show the progressive elaboration of cellular and tissue structure in animal phylogeny. Students will prepare their own microscope material. A research type project is assigned involving substantial readings of original material. (*Prerequisite*: 417; 302 advised as a pre-or corequisite)  
NO(2-3)

#### BIOL 420 (1½) APPLIED VEGETATION SCIENCE

The applications of vegetation study to land planning and management, to environmental impact assessment, to landscape rehabilitation and soil stabilization; ecology of vegetation on disturbed landscapes; human influences on vegetation pattern; use of living plants in civil engineering works. Examples will be studied in forestry, park and water management, regional planning, mining and quarrying reclamation, highway construction, hydroelectric development, harbour and shoreline development. The course will be field trip, project and discussion oriented with guest speakers from government and private agencies. (*Pre- or corequisites*: 306 and 418A and 418B, or written permission of the instructor)  
M.A.M. Bell S(2-3)

#### BIOL 423 (1½) PLANT METABOLISM

An advanced discussion on biochemical pathways for carbon, nitrogen, and phosphorus metabolism and mechanisms for regulation of these pathways. Students will be responsible for either one essay or one seminar based on library research of a problem of current interest in plant physiology and biochemistry. (*Prerequisite*: 331 or permission of instructor; BIOC 300 is recommended) Text: Assigned readings  
NO(2-3)

#### BIOL 424 (1½) BIOLOGICAL ULTRASTRUCTURE

Selected topics from the current literature on cell structure as revealed by the electron microscope. Processes such as motility, transport, intercellular communication, protein synthesis, absorption, secretion, etc. which lend themselves to analysis in structural terms are stressed. Lectures, reading assignments and at least one seminar presentation per student may be expected. (*Prerequisites*: 200 and BIOC 200; 302 or 343 recommended) (Enrollment limited to 26)  
G.O. Mackie S(3-0)

#### BIOL 425A (1½) (formerly half of 425) ENVIRONMENTAL PHYSIOLOGY OF ANIMALS: I

Physiological adaptations of animals to variations in the physical and chemical environment. This course concentrates on the effects of radiation, low temperature, and chemical toxicology. The laboratory involves familiarization with major techniques and demonstration experiments. (*Prerequisites*: 305A and 305B)  
M.J. Ashwood-Smith F(2-3)

**BIOL 425B (1½) (formerly half of 425) ENVIRONMENTAL PHYSIOLOGY OF ANIMALS: II**

Physiological adaptations of animals to variations in the physical and chemical environment. This course concentrates on topics not covered in 425A, such as adaptations to altitude, diving, and deserts. Students participate in presentation of lecture material. The laboratory involves a major research project. (*Prerequisites:* 305A, 305B and 425A or permission of the instructor)

J.S. Hayward

S (2-3)

**BIOL 426A (1½) (formerly half of 426) LIMNOLOGY**

Study of freshwater systems, particularly lakes, with emphasis on their physical and chemical aspects. (*Prerequisite:* 306; 206, 411A, 411B, and 427 are recommended)

NO(2-3)

**BIOL 426B (1½) (formerly half of 426) LIMNOLOGY**

Study of freshwater systems, particularly lakes, with emphasis on biological aspects. (*Prerequisite:* 306; 206, 411A, 411B, and 427 are recommended)

NO(2-3)

**BIOL 427 (1½) POPULATION ECOLOGY**

A survey of theories of population growth and regulation, life history strategies, and population interactions. Requirements include considerable outside reading and presentation of a class seminar. Laboratories consist of experiments designed to demonstrate basic principles of population ecology and the use of relevant quantitative techniques. Quantitative aspects of population ecology are stressed. (*Prerequisite:* 306; *pre- or corequisite:* 251 (or equivalent) and 455, or permission of instructor)

P.T. Gregory

F(2-3)

**BIOL 428 (1½) ZOOGEOGRAPHY**

The patterns of animal distributions with particular emphasis on the mechanisms and causes underlying observed distributions. Those registered will be expected to do considerable outside reading, and to participate in seminars. (*Prerequisite:* 306)

NO(2-3)

**BIOL 430 (1½) IDENTIFICATION AND TAXONOMY**

Instruction in concepts and methods of species identification, the construction of biological classifications, and the use of nomenclature codes. Practical assignments will include traditional and numerical (computerized) methods of identification, numerical (phenetic and cladistic) methods for the construction of classification and field trips to operating identification centres. Each student will undertake a taxonomic review of a genus of his or her choice, using classical and contemporary methods. Students may use statistical, computer, electron microscopic, photographic or other procedures for the taxonomic project provided they have appropriate technical skills. Lectures will be presented in weekly 2-hour evening sessions and arrangements for practical assignments can be adjusted to the needs of employed biologists. (Students need to operate an IBM PC. Instructional sessions will be arranged during the 2nd and 3rd weeks of the course.) (*Prerequisite:* 4th year standing) May be presented in alternate years

NO(2-3)

**BIOL 431A (1½) (formerly half of 431) ICHTHYOLOGY**

Selected topics on the morphological, physiological and behavioural adaptations and evolution of primitive fishes including cyclostomes, cartilaginous fishes and related fossil forms. Laboratory work includes a research project with a written report and seminar. At least one field trip is required. (Credit will not be given for both 431A and MRNE 412.) (*Prerequisite:* 207 or equivalent) Text: Bone and Marshall, *The Biology of Fish*

J.E. McInerney

F(2-3)

**BIOL 431B (1½) (formerly half of 431) ICHTHYOLOGY**

Selected topics on the adaptations and evolution of bony fishes. Laboratory work will include a research project with a written report and seminar. Participation in at least one field trip is required. (Credit will not be given for both 431B and MRNE 412.) (*Prerequisite:* 207 or equivalent) Text: Bone and Marshall, *The Biology of Fish*

J.E. McInerney

S(2-3)

**BIOL 433A (1½) (formerly half of 433) ADVANCED DEVELOPMENTAL ZOOLOGY**

Laboratory projects and exercises will introduce students to methods used in the study of animal development. (*Prerequisite:* 309) (This course is designed to complement 433B; 433A and 433B may be taken in any order)

R.D. Burke

F(1-3)

**BIOL 433B (1½) (formerly half of 433) ADVANCED DEVELOPMENTAL ZOOLOGY**

Lectures, discussions, seminars and directed readings in the analysis of animal development. Reading and collation of the relevant original literature and synthesis of information for seminars and discussions will be required. (*Prerequisite:* 309) (This course is designed to complement 433A; 433A and 433B may be taken in any order)

M. Paul

S(3-0)

**BIOL 434 (1½) BIOMECHANICS OF ORGANISMS**

A study of elemental principles of structural engineering and fluid dynamics applied to the biological world; the course addresses functional aspects of organisms in two contexts: i) biomechanical design including material characteristics and structural forms; and ii) responses in design and behaviour to moving fluids. The anticipated result is an appreciation for the abilities of animals and plants as design engineers. (*Prerequisite:* 206 and a 100 level Physics course)

NO(3-3)

**BIOL 440 (1½) QUANTITATIVE ECOLOGY**

An introduction to the use of simulation and multivariate models in ecology. (*Prerequisites:* 306 and a modest level of ability in computer programming; students are encouraged to discuss their programming abilities with the instructor.)

NO(2-3)

**BIOL 443 (1½) BIOLOGY OF CONIFERS**

A study of the biology of conifers with special emphasis given to the evolution, taxonomy, distribution, physiology, growth and development and reproduction of native species. Laboratories will involve field trips, seedling physiology and development of vegetative and reproductive structures. (*Prerequisite:* 204)

J.N. Owens

F(2-3)

**BIOL 445 (1½) ADVANCED TOPICS IN ETHOLOGY: ANIMAL COMMUNICATION**

An introduction to the primary literature and current research in animal communication and signalling. Areas of major emphasis will include: methods of description and analysis; concepts and theories; and adaptation, phylogeny, and ecology. (*Prerequisite:* 345 or permission of the instructor)

E.H. Miller

S(3-0)

**BIOL 450A (1½) (formerly half of 450) MARINE PLANKTON BIOLOGY**

A comprehensive study of systematics, physiology and ecology of marine plankton for students with an introductory laboratory course in oceanography. A basic understanding of physical and chemical oceanography is assumed. Effects of light, temperature, pressure, nutrients and other physical and chemical parameters on primary productivity, distribution and abundance of bacteria and phytoplankton, will be examined. Students will be expected to do considerable outside reading from relevant oceanographic literature and to incorporate this with a field or laboratory research program. Participation in research cruises is required. (*Prerequisite:* 311B)

J.L. Littlepage

F(2-3)

**BIOL 450B (1½) (formerly half of 450) MARINE PLANKTON BIOLOGY**

A comprehensive study of systematics, physiology and ecology of marine plankton for students with an introductory laboratory course in oceanography. A basic understanding of physical and chemical oceanography is assumed. Effects of light, temperature, pressure, nutrients and other physical and chemical parameters on secondary productivity, distribution and abundance of protozoa and zooplankton, will be examined. Students will be expected to do considerable outside reading from relevant oceanographic literature and to incorporate this with a field or laboratory research program. Participation in research cruises is required. (*Prerequisite:* 311B)

J.L. Littlepage

S(2-3)

**BIOL 452 (1½) MARICULTURE SEMINAR**

Reviews of current scientific literature on aquaculture. Students will be expected to prepare a critical written report and to present a seminar on assigned topics. (*Prerequisite:* 407 or permission of the instructor)

NO(3-0)

**BIOL 453 (1½) STRESS PHYSIOLOGY OF PLANTS**

An advanced study of the physiological responses of plants to temperature extremes, drought, salinity, radiation stress and air pollution. (*Prerequisites:* 331A and B or permission of instructor) Text: Fitter and Hay,

*Environmental Physiology of Plants*  
D.J. Ballantyne

S(3-0)

**BIOL 454 (1½) MARINE BENTHOS BIOLOGY**

A synthesis of physical, chemical and biological influences on ocean bottom biota. The major characteristics of intertidal, coral reef, shelf and deep sea systems will be discussed. Examples from marine biota will be used to explore modern ecological and evolutionary theories. Emphasis will be on the scientific methods of studying individuals, populations, communities and ecosystems. (*Prerequisite:* 206, 306) S(2-3)

**BIOL 455 (1½) EVOLUTION THEORY**

Historical and contemporary views of evolutionary processes and the spatial and temporal patterns they produce. Topics will include genetic variation, natural selection, speciation, macroevolutionary processes and the origin of life. (*Prerequisites:* 200, 203, 204, 206, 207, 300) G.A. Allen F(3-0)

**BIOL 460 (1) HONOURS SEMINAR**

Participation in seminars as arranged by the Department and the Honours Coordinator. Required of all Honours students in their fourth year of studies, as an addition to the normal 15 units.

(Grading: COM, N, or F)

**BIOL 490 (1½) DIRECTED STUDIES IN BIOLOGY**

In special circumstances the Department may give permission for supervised individual studies or directed readings to fourth year students. BIOL 490 may be repeated; normally to a maximum of 3 units. (Grading: INC., Letter Grade)

- 490A Directed studies in botany
- 490B Directed studies in ecology
- 490C Directed studies in functional biology
- 490D Directed studies in marine biology
- 490E Directed studies in zoology

**BIOL 491 (1½) DIRECTED RESEARCH IN BIOLOGY**

In special circumstances the Department may give permission for supervised research projects to fourth year students. (May be repeated, normally to a maximum of 3 units) (Grading: INC, Letter Grade)

- 491A Directed Research in Botany
- 491B Directed Research in Ecology
- 491C Directed Research in Functional Biology
- 491D Directed Research in Marine Biology
- 491E Directed Research in Zoology

**BIOL 499 (3) THESIS OR TUTORIAL**

Research under the direction of faculty. Open to Honours students only. (Grading: INC; Letter Grade)

**MARINE SCIENCE**

The Marine Science courses listed below are offered at the Bamfield Marine Station only during the summer months and may be taken by students with permission of the Biology Department. However, during the winter, courses may be offered by Simon Fraser University at Bamfield. Students working towards a University of Victoria degree may be authorized to take these by the Assistant Dean of Arts and Science.

When authorized by the Dean, such courses will be treated as if they had been offered by the Biology Department at the University of Victoria in determining the students' grade point averages, and in satisfying University, Faculty, and Departmental program requirements.

**MRNE 400 (3) DIRECTED STUDIES**

A course of directed studies under the supervision of a member of faculty. The study will involve a research project approved by the supervisor in the field of interest of the student, and will be designed to take maximum advantage of the laboratory and/or field opportunities offered by the Bamfield Marine Station. (May be repeated with permission of the Department)

**MRNE 401 (3) SPECIAL TOPICS IN MARINE BIOLOGY**

This course will be offered, as opportunities arise, by distinguished scientists who are working at the Bamfield Marine Station. It is expected that the course will generally be of a specialized nature and be at a level appropriate to graduate or senior undergraduate students. (May be repeated with permission of Department)

**MRNE 402 (1½) SPECIAL TOPICS IN MARINE BIOLOGY**

This course will be offered, as opportunities arise, by distinguished scientists who are working at the Bamfield Marine Station and are prepared

to offer a course extending over a three week period. This course will be of a specialized nature. (May be repeated with permission of Department)

**MRNE 410 (3) MARINE INVERTEBRATE ZOOLOGY**

A survey of marine phyla, with emphasis on the benthic fauna in the vicinity of the Bamfield Marine Station. The course includes lectures, laboratory periods, field collection, identification, and observation. Emphasis is placed on the study of living specimens in the laboratory and in the field.

**MRNE 411 (3) COMPARATIVE INVERTEBRATE EMBRYOLOGY**

A comprehensive study of development of marine invertebrates available at the Bamfield Marine Station, including all major phyla and most of the minor phyla. A total of 25 or 30 lectures, covering gametogenesis, fertilization, larval development and metamorphosis of different groups will be given. Laboratory work will include methods and techniques of obtaining and handling of gametes, preparation and maintenance of larval cultures, and observations up to metamorphosis if possible. Some selected and clearly defined experiments will be performed. Efforts will be made also to study various pelagic larvae collected from the plankton. It is hoped that such a broad approach, as outlined above, will provide the student with fundamental frameworks and insights for analytical studies on the one hand, and for reproductive ecology on the other. (Credit will not be given for both 411 and BIOL 403.)

**MRNE 412 (3) BIOLOGY OF FISHES**

Classification, physiology, ecology, behaviour and zoogeography of fishes with particular emphasis on those in the marine environment of the British Columbia coast. This course will involve some field projects. (Credit will not be given for both 412 and BIOL 431.)

**MRNE 413 (3) BIOLOGY OF MARINE MOLLUSCS**

An advanced course of selected topics emphasizing functional morphology, ecology and evolution of this diverse phylum; field trips will be undertaken to survey the representative molluscs of the Bamfield region. Students will be expected to complete an independent field or laboratory study of selected molluscs. (*Prerequisite:* 410 or equivalent)

**MRNE 420 (3) MARINE PHYCOLOGY**

A survey of the marine algae, with emphasis on the benthic forms in the vicinity of the Bamfield Marine Station. The course includes lectures, laboratory periods, field collection, identification, and observation. Emphasis is placed on the study of living specimens in the laboratory and in the field.

**MRNE 430 (3) MARINE ECOLOGY**

An analytical approach to biotic associations in the marine environment. Opportunities will be provided for study of the intertidal realm in exposed and protected areas and of beaches and estuaries in the vicinity of the Bamfield Marine Station; plankton studies and investigations of the subtidal and benthic environments by diving and dredging are envisaged. (Credit will not be given for both 430 and BIOL 406.)

**MRNE 435 (3) INTRODUCTION TO BIOLOGICAL OCEANOGRAPHY**

An introduction to the biology of the oceans, with supporting coverage of relevant physics and chemistry. Emphasis will be placed on plankton biology, community structure and life histories, and influencing environmental factors. Collections will be made from sheltered inlets, through Barkley Sound to offshore waters. The course will involve both field and laboratory studies of plankton organisms.

**MRNE 440 (3) BIOLOGY OF MARINE BIRDS**

A study of the interrelationship of birds and the marine environment; the systematics and ecological relationships, behaviour, life histories, movement and conservation of marine birds; census techniques and methods of studying marine birds in the field will be treated utilizing seabirds and marine-associated birds in the Barkley Sound region. Sea-bird identification, classification, morphology, plumages and molt will be examined in the laboratory. (*Prerequisite:* A course in Vertebrate Zoology or permission of the instructor)

**MRNE 445 (3) BIOLOGY OF MARINE MAMMALS**

A survey course covering systematics and distribution of marine mammals, their sensory capabilities and physiology, with special emphasis on the Cetacea; the course includes lectures, laboratory periods and numerous field trips in the Barkley Sound region. The course will involve an independent field study. (*Prerequisite:* A course in Vertebrate Zoology)

**MRNE 446 (3) COMPARATIVE ETHOLOGY**

A comparative study of marine animals (vertebrate and invertebrate) emphasizing behavioural description, underlying physiological mechanisms, the biological significance of behaviour and behavioural evolution; the course will include independent laboratory and field studies. (Credit will not be given for both 446 and BIOL 345. *Prerequisites:* Courses in each of Invertebrate Zoology, Vertebrate Zoology, Ecology and Physiology)

**GRADUATE COURSES****BIOLOGY**

Biology 511 and 527 will be offered every year. Students should consult the Department concerning which other courses will be offered in any particular year. All students are expected to register for 560 (seminar).

Ph.D. candidates are required to present a departmental seminar in the final year of their program.

Admission to any graduate course requires prior permission of the instructor. Unless otherwise indicated, graduate courses may not be offered every year.

**BIOL 500 (1½) SELECTED TOPICS IN THE HISTORY AND PHILOSOPHY OF BIOLOGY**

Required once of all graduate students, but may be repeated more than once, as topics vary. If possible, to be taken in first winter session of graduate registration.

R.G.B. Reid

**BIOL 501T (3) CONCEPTS IN MODERN BIOLOGY FOR SCIENCE TEACHERS**

Students wishing to take this course should consult with the Department of Biology in March of the previous academic year.

**BIOL 509A (1) NEUROBIOLOGY SEMINAR**

One hour/week seminar on topics in current research in neurobiology.

G.O. Mackie

**BIOL 509B (1½) NEUROBIOLOGY LECTURE**

Cellular and developmental aspects of the nervous system; connectional specificity in development and regeneration; essentials of neurophysiology including membrane and synaptic potentials, sensory transduction, and general principles of sensory and motor integration in the central nervous system.

G.O. Mackie

**BIOL 509C (1½) NEUROBIOLOGY LABORATORY**

Laboratory experiments using (a) various techniques of dissection and staining of peripheral nerves and intracellular staining of neurons in the central nervous system, and (b) extra- and intracellular electrophysiological techniques for stimulating activities and recording neurons.

G.O. Mackie

**BIOL 510 (3) ADVANCED TOPICS IN ICHTHYOLOGY****BIOL 511 (1) MARINE SCIENCE SEMINAR**

Selected topics in marine biology will be dealt with in depth. (May be repeated more than once) (Grading: INC, COM, N or F)

**BIOL 512 (1½) ADVANCED BENTHOS ECOLOGY**

(May be repeated once)

**BIOL 513 (1-3) TOPICS IN DEVELOPMENTAL BIOLOGY**

R.D. Burke

**BIOL 514 (1½) ADVANCED ZOOPLANKTON ECOLOGY**

(May be repeated once)

J.L. Littlepage

**BIOL 515 (1½) ECOLOGY SEMINAR**

Selected topics in ecology will be explored in depth. (May be repeated more than once) (Grading: INC, COM, N or F)

**BIOL 517 (1½) ADVANCED PHYTOPLANKTON ECOLOGY**

(May be repeated once)

L.A. Hobson

**BIOL 518 (1½) ELECTRON MICROSCOPY**

An introduction to the principles and basic techniques of electron microscopy emphasizing common preparative methods for transmission and scanning electron microscopy. A final report illustrated by the student's electron photomicrographs is required. (*Prerequisite:* 344 or 417 or equivalent, and permission of the Electron Microscopy Supervisor. Enrollment is restricted to 3 students per term.)

A.R. Fontaine

**BIOL 519 (1½) ADVANCED ELECTRON MICROSCOPY**

Individual studies in advanced methods. (*Prerequisite:* 518 or equivalent, and permission of the Electron Microscope Supervisor) (Grading: INC, COM)

A.R. Fontaine

**BIOL 521 (1½) ADVANCED TOPICS IN MARINE AND/OR FRESHWATER ALGAE**

(May be repeated once)

A.P. Austin

**BIOL 526 (1½) TOPICS IN BIOLOGICAL ULTRASTRUCTURE**

G.O. Mackie, A.R. Fontaine

**BIOL 527 (1-3) ADVANCED TOPICS IN CELL BIOLOGY**

Seminars, discussions and laboratory work associated with recent advances in cell biology.

M. Paul

**BIOL 530 (1½) PRINCIPLES OF TAXONOMY**

(Not open to students with credit in 430 or equivalent)

D.V. Ellis

**BIOL 533 (3) ADVANCED TOPICS IN EMBRYOLOGY OF MARINE INVERTEBRATES**

M. Paul

**BIOL 534 (1½) PROBLEMS IN ENVIRONMENTAL MANAGEMENT**

(May be repeated once.)

**BIOL 542 (1½) SELECTED TOPICS IN CONIFER BIOLOGY**

(May be repeated once)

(Grading: INC, COM, N or F)

**BIOL 545 (1½) ASPECTS OF ENVIRONMENTAL SCIENCE**

(May be repeated once)

D.V. Ellis

**BIOL 549 (1-6) INDIVIDUAL STUDY**

(May be taken in any of the following areas under the appropriate faculty member)

549A Advanced Mycology

549B Topics in Ecology

549C Advanced Plant Ecology

549D Advanced Plant physiology

549E Recent Advances in Insect Physiology

549F Recent Advances in Genetics

549G Advanced Vertebrate Physiology

549H Advanced Parasitology

549J Plant Anatomy and Morphology

549K Topics in Advanced Invertebrate Zoology

549L Physiology of Marine Animals

549M Advanced Quantitative Ecology

549N Advanced Population Ecology

**BIOL 550 (1-6) DIRECTED STUDIES****BIOL 555 (1½) ADVANCED EVOLUTIONARY BIOLOGY**

G.A. Allen

**BIOL 560 (1) SEMINAR**

Participation in a program of seminars. Required of all graduate students every year of their degree program except by Departmental permission. Shall be treated, in its grading, as the thesis or the dissertation and shall be given one unit of credit upon completion.

(Grading: INP, COM, N or F)

**BIOL 570 (1½) PRINCIPLES OF ENVIRONMENTAL TOXICOLOGY**

Lectures and seminars on the fundamental biochemical physiological and genetic effects of the major environmental contaminants such as heavy metals, biocides and their metabolites and naturally occurring toxins.

**BIOL 571 (1½) ENVIRONMENTAL TOXICOLOGICAL HAZARD ASSESSMENT**

An intensive laboratory workshop to be given in the course of 8-10 days during May-June. Techniques for the evaluation of genetic hazards associated with environmental contaminants will be demonstrated and will include: (i) Bacterial mutation systems for carcinogen testing (Ames' Test); (ii) Quantitative mammalian cell tissue culture for toxicity testing and for the evaluation of chromosome damage (Sister Chromatid Exchange Analysis); (iii) Micronuclei and sperm abnormality assays; (iv) Preparation and use of P448/P450 microsomal enzymes; (v) Endocrine assays for "oestrogen like" compounds (e.g. DES).

**BIOL 599 (credit to be determined) THESIS**

(Grading: INP, COM, N or F)

**BIOL 699 (credit to be determined) PH.D. DISSERTATION****MARINE SCIENCE**

(Grading: INP, COM, N or F)

**FOREST BIOLOGY****FORB 500 (1½) FOREST BIOLOGY**

Required of all Forest Biology graduate students. An overview of the philosophy and goals of forest biology from the perspectives of: past, present and future needs; industry, government and university roles; and, basic and applied research and development.

F(2-0)

**FORB 531 (1½) TREE GROWTH AND DEVELOPMENT**

Tree growth and development from the seedling to maturity will be discussed from developmental and physiological perspectives. Shoot, bud, root and wood formation will be emphasized. Laboratories will include seedling development and physiology, forms of shoot development and control of shoot growth, forms of vegetative bud development, root development and physiology in relation to symbionts and cambial structure and function in wood formation.

F(2-3)

**FORB 532 (1½) REPRODUCTIVE BIOLOGY OF FOREST TREES**

The physiology and development of reproductive structures will be covered from the stages of floral initiation to seed maturity. Floral induction, pollination and factors affecting seed, cone and flower development will be discussed. Laboratories will include floral induction, floral development, pollination biology, pollen physiology, embryology, and seed, cone and fruit development.

S(2-3)

**FORB 533 (1½) ADVANCED TECHNIQUES IN CYTOGENETICS**

Lectures and laboratories discussing in depth the principles and techniques of cytogenetics as applied to forest trees and other plant species. Topics may include: conventional root tip squashes, sources of mitotic cells, use of mitotic blocking agents, isolation of protoplasts, culture, preparation of metaphase chromosome spreads, chromosome banding, and Karyotyping techniques.

F(2-3)

**FORB 545 (1½) PLANT TISSUE CULTURE TECHNIQUES**

Basic principles of plant tissue culture will be taught including protoplast, cell, callus and embryo culture. Methods of growing plantlets via single cell isolates, somatic embryogenesis, callus and bud cultures will be covered. Biochemical, physiological and developmental aspects of plant tissue culture will be discussed. Laboratories will include media

preparation, sterile techniques, methods of cell and tissue isolation, protoplast isolation, cell suspension cultures, callus cultures, stimulation of embryoids, and root and shoot initiation.

F(2-3)

**FORB 546 (1½) CLONAL PROPAGATION OF FOREST TREES**

Present and future techniques for clonal propagation of forest trees will be considered as well as the potential and limitations of clonal propagation for reforestation. Techniques for rooting of cuttings, grafting, bud and embryo culture and somatic embryogenesis will be taught. Development of techniques for embryoid culture from single cells and root and shoot development from callus will be discussed. Laboratories will emphasize clonal propagation techniques using conifer and selected hardwood species. (Prerequisite: 545 or permission of the instructor)

S(2-3)

**FORB 551 (1½) TREE PHYSIOLOGY**

Basic principles of mineral nutrition, water relations, photosynthesis, respiration, transport and growth regulators as they apply to forest trees and the environmental influence on forest tree metabolism, growth, development and reproduction.

F(2-3)

**FORB 552 (1½) SEEDLING PHYSIOLOGY AND REGENERATION**

Tree physiology as it applies to seedling growth and establishment. Topics may include: stock quality and control, mineral nutrition, growth and development, root regeneration, dormancy induction, cold hardiness and environmental influences on nursery stock after outplanting. (Prerequisite: 551)

S(2-3)

**FORB 555 (1½) ADVANCED FOREST PATHOLOGY**

Lectures and laboratory sessions designed to familiarize graduate students with the most recent advancements in forest pathology. Topics may include: a review of past and present scientific literature, status of the world's most important forest diseases and techniques such as recent advancements in biotechnology that are being used to solve forest pathology problems. (Prerequisite: A course in Mycology or Plant Pathology)

F(2-3)

**FORB 556 (1½) TECHNIQUES IN FOREST PATHOLOGY**

A series of lectures and laboratory and field exercises to acquaint graduate students with specific techniques that are being used by both researchers and silviculturalists for solving disease problems. (Prerequisite: 555 or permission of the instructor)

S(2-3)

**FORB 560 (1) FOREST BIOLOGY SEMINAR**

Student and guest seminars on selected topics in forest biology and forest biotechnology and regeneration. Required of all graduate students in forest biology every year of their degree program (except by Departmental permission)

Grading: INP, COM, N or F)

**FORB 570 (1½) ADVANCED TOPICS IN FOREST BIOLOGY**

This course will allow the development of special courses in the form of lectures, seminars or individual directed studies in a specialized area not covered by other courses and tailored to the needs of students in any one year. (May be repeated more than once)

**MARINE SCIENCE****MRNE 500 (1-6) DIRECTED STUDIES****MRNE 501 (3) SPECIAL TOPICS****MRNE 502 (1½) SPECIAL TOPICS****DEPARTMENT OF CHEMISTRY**

Gerald A. Poulton, B.A., Ph.D. (Sask.), Associate Professor and Chairman of the Department

Walter J. Balfour, B.Sc. (Aberdeen), Ph.D. (McMaster), D.Sc. (Aberdeen), Professor

Gordon W. Bushnell, M.A., B.Sc. (Oxon.), Ph.D. (W. Indies), Professor

Keith R. Dixon, B.A. (Cantab.), Ph.D. (Strathclyde), Professor

Ilfred Fischer, B.Sc., M.Sc., Ph.D. (N.Z.), Professor

Alexander D. Kirk, B.Sc., Ph.D. (Edin.), Professor

Alexander McAuley, B.Sc., Ph.D., D.Sc. (Glasgow), C.Chem., A.R.I.C., Professor

Professor

Reginald H. Mitchell, B.A., M.A., Ph.D. (Cantab.), F.C.I.C., Professor

N. O'Brien, B.A.Sc., M.A.Sc. (Brit. Col.), Ph.D. (Manc.), Adjunct Professor (1987-89)

Stephen R. Stobart, B.Sc., Ph.D. (Nott.), Professor

David Eric Axelson, B.Sc. (Tor.), Ph.D. (York), Adjunct Associate Professor (1987-89)

Graham R. Branton, B.Sc., Ph.D. (Southampton), Associate Professor

Thomas W. Dingle, B.Sc., Ph.D. (Alta.), Associate Professor

Thomas M. Fyles, B.Sc. (U. of Vic.), Ph.D. (York), Associate Professor

M. Coreen Hamilton, B.Sc. (McG.), Ph.D. (Alta.), Adjunct Associate Professor

Martin B. Hocking, B.Sc. (Alta.), Ph.D. (Southampton), C.Chem., F.R.S.Chem., Associate Professor

Geoffrey Hunter, B.Sc. (Sheffield), Ph.D. (Newcastle), Visiting Associate Professor (1987-88)

Wesley M. Johnson, B.Sc. (Brit. Col.), Ph.D. (Wash.), Part Time Adjunct Associate Professor (1987-88)

Kenneth J. Reimer, B.Sc., M.Sc. (Calgary), Ph.D. (W. Ont.), Part Time

- Adjunct Associate Professor (1987-89)  
 Frank P. Robinson, A.B. (Fisk), Ph.D. (Alta.), F.C.I.C., Associate Professor  
 Paul R. West, B.Sc., Ph.D. (McMaster), Associate Professor  
 René T. Boéré, B.Sc. (Dal.), Ph.D. (W. Ont.), Visiting Assistant Professor (1987-88)  
 David A. Harrington, B.Sc. (Canterbury), Ph.D. (Auckland), Assistant Professor  
 Stanislaw Maciaszek, B.Ed. (Lakehead), M.Sc., Ph.D. (Warsaw Technical U.), Visiting Assistant Professor (1987-88)  
 Somyong Visaisouk, B.S. (Hawaii), Ph.D. (U. of Vic.), Adjunct Assistant Professor (1987-89)  
 Peter C.F. Wan, B.Sc., Ph.D. (Tor.), Adjunct Assistant Professor (1987-89)  
 David E. Berry, B.Sc. (Liverpool), Ph.D. (Bristol), Senior Laboratory Instructor  
 Terrance K. Davies, B.Sc. (U. of Vic.), Senior Scientific Assistant  
 Karel Hartman, L.I.R.I., B.Sc. (U. of Vic.), Senior Laboratory Instructor  
 Richmond H. Kirby, Administrative Officer  
 Peter Marrs, B.Sc., Ph.D. (Brit. Col.), Senior Laboratory Instructor  
 David L. McGillivray, B.Sc. (Edin.), Ph.D. (Ottawa), Senior Scientific Assistant  
 Richard S. Reeve, B.Sc. (U. of Vic.), Ph.D. (Queen's), Coordinator, Co-operative Education Program  
 A. Brian Yamashita, B.Sc. (Man.), Ph.D. (W. Ont.), Senior Laboratory Instructor

## GRADUATE PROGRAMS

For information on studies leading to the M.Sc. and Ph.D. degrees, see page 218, for graduate courses, see page 53.

### GENERAL, MAJOR AND HONOURS PROGRAMS

The Department of Chemistry offers a variety of programs leading to the B.Sc. degree. These are intended to provide students with the opportunity of undertaking either specialized studies in Chemistry, or a broader program with Chemistry as a focal point supplemented by other disciplines. These programs provide preparation for a wide range of careers requiring a background of Chemistry.

The Honours and Major Programs are designed for those students wishing to embark on careers as professional chemists. In the Honours degree, a student undertakes an in-depth study of Chemistry with other supporting physical sciences. A feature of the Program is that the student participates in a short research project in the final year of study. The Honours Program requires 35½ units of Chemistry courses within a total of 61 units for the degree. Six units of mathematics, 3 units of physics and 3 units of another science are required corequisites. On graduation as a professional chemist the candidate may either enter employment in a variety of industries or proceed to graduate school and the higher qualifications of M.Sc. and Ph.D. The Major Program provides the student with somewhat more flexibility in the choice of courses. Twenty-five and one half units of Chemistry are required, together with 6 units of mathematics, 3 units of physics and 3 units of another science as corequisites. The degree is sufficiently specialized to present an attractive chemical background to a prospective employer and to provide the opportunity for students maintaining high averages to continue to graduate school. Both these programs are suitable for students intending to enter a career in teaching at the secondary level.

The Department also offers considerable scope for students wishing to include Chemistry as part of a B.Sc. or B.A. General program. Students with this training will frequently find career opportunities in industry, both at the technical and managerial levels, in business, teaching and many other occupations. The influence of Chemistry in modern society is considered in Chemistry 300, a course intended for nonscientists who have successfully completed at least 15 units of university credit.

### COOPERATIVE EDUCATION PROGRAMS

The Cooperative Education Program in the Faculty of Arts and Science is described on page 31.

Entry to the Chemistry Cooperative Program is restricted to students who are enrolled in an Honours or Major program offered by the Department. To enter and remain in the Chemistry Cooperative Program, students must normally maintain a B average (4.50) in Chemistry courses and overall. Students are also required to complete satisfactorily at least five work terms. Their first work term normally will be in the summer at the end of their first academic year and thereafter the year-round sequence is one of alternating four month terms of academic study and

work experience. A student may at any time transfer from the Chemistry Cooperative Program to a regular Chemistry program.

Each Work Term is recorded on the student's academic record and transcript (as COM, N or F) and details of Work Terms are recorded on the Record of Work Terms which is attached to the student's academic record and transcript.

## COURSE REQUIREMENTS OF CHEMISTRY UNDERGRADUATE PROGRAMS

Students with credit in the following courses which are no longer offered may take the specified substitutions in any undergraduate program:

CHEM 124	for 101 and 102
CHEM 145	for 245
CHEM 224	for 222 and 245
CHEM 233	for 231 and 235
CHEM 316 and 317	for 312 and 318
CHEM 325 and 422	for 424 and 425
CHEM 423	for 323

### First Year (General or Major or Honours)

CHEM 100 <sup>A</sup> , or 101 <sup>B</sup> , or 140 <sup>C</sup>	(1½)
CHEM 102, or 245 <sup>D</sup>	(1½)
MATH 100/101	(3)
Two of PHYS 110 (or 125)/120/220	(3)
Other courses (Electives; may include CHEM 231)	(6)

<sup>A</sup>For students with Chemistry 11 and Algebra 12 or Mathematics 12 or equivalents

<sup>B</sup>For students with Chemistry 12 and Algebra 12 or Mathematics 12 or equivalents

<sup>C</sup>For students with at least "B" standing in Chemistry 12 and Algebra 12

<sup>D</sup>For students with at least "B" standing in CHEM 140

### Second Year (General)

CHEM 213/222/231/235/245	(7½ or 6*)
MATH 200/201	(3)
Other courses (Electives)	(4½ or 6*)

\*If CHEM 245 completed previously

### Second Year (Major or Honours)

CHEM 213/222/231/235/245	(7½ or 6*)
MATH 200/201	(3)
Two of PHYS 214/215/216/217 (recommended), or three units of science courses chosen from BIOC 200, BIOL 200, MATH 233A/B/C, or other Biochemistry, Mathematics or Physics courses at the 200 level or above, or Computer Science courses, with permission of department	(3)
Other courses (Electives; may include options not used above) (3* or 1½)	
*If CHEM 245 completed previously	

### Third and Fourth Years (General)

Nine additional units of chemistry in courses numbered above 300 for which the required prerequisites have been taken	(9)
Nine units in a second area of concentration	(9)
Other courses	(12)

### Third and Fourth Years (Major)

CHEM 312/318/323/324/335/338/345/346	(12)
Any two of CHEM 411/424/425/433/434/444/446	(3)
Other courses	(15)

### Third Year (Honours)

CHEM 312/318/323/324/335/338/345/346/399	(13)
Other courses	(3)

### Fourth Year (Honours)

Any six of CHEM 411/424/425/433/434/444/446	(9)
CHEM 499	(3)
Other courses	(3)

NOTES: 1. Courses may be taken in different sequences and in different years than those indicated provided that the co- and prerequisite requirements are satisfied. However, students must be extremely careful in planning programs that differ from the normal sequence.

2. Students considering graduate work in chemistry are advised to acquire a reading knowledge of at least one of French, German or Russian.

3. Students may not register for a course in Chemistry if they have a D grade in the prerequisite Chemistry course unless they receive written permission of the Department.

4. Glasses or face shields must be worn by all students in laboratories. These are available in the Department. Chemistry Department laboratory notebooks may be purchased in the University Bookstore.

## HONOURS

The general requirements for admission to the Third Year of an Honours Program are specified in the table above. Permission of the Department is required for admission into each of the Third and Fourth Years of the Chemistry Honours program. For this, the Department is to be consulted, by interview or by letter, no later than one month before the last day for submission of applications for admission or readmission to the University. The minimum requirement for admission to the Fourth Year is a second class average in all the work of the Third Year and also in the required courses of the Third Year Chemistry Honours Program. Honours students are advised to include an additional mathematics course among their electives. Suitable courses are Computer Science 110, 112, 115, and Mathematics 323A/B, 330A/B.

A student in the Chemistry Honours Program is required to attain a 6.50 graduating average, and a grade point average of 6.50 or higher in all required third and fourth year chemistry courses in order to obtain a First Class Honours degree. To obtain a Second Class Honours degree a student is required to obtain at least a 4.00 graduating average.

## DOUBLE HONOURS

In order to qualify for First Class Honours in Chemistry, a student in a double Honours degree program which includes Chemistry as one of the areas must achieve a grade point average of at least 6.50 in all of the third and fourth year courses required for Honours Chemistry, and a grade point average of at least 6.50 in all of the third and fourth year chemistry courses. To obtain Second Class Honours in Chemistry, a student must obtain a grade point average of at least 4.00 in all of the third and fourth year courses required for Honours Chemistry.

## BIOCHEMISTRY OR MICROBIOLOGY and CHEMISTRY COMBINED MAJOR

Students wishing to obtain a combined major in Biochemistry or Microbiology and Chemistry should take the following program.

<b>First Year</b>	
CHEM 100 <sup>A</sup> , or 101 <sup>B</sup> , or 140 <sup>C</sup>	(1½)
CHEM 102, or 245 <sup>D</sup>	(1½)
ENGL 121/122, or 115/116	(3)
MATH 100/101	(3)
Two of PHYS 110 (or 125)/120/220	(3)
Other courses (Electives; may include CHEM 231)	(3)

<sup>A</sup>For students with Chemistry 11 and Algebra 12 or Mathematics 12 or equivalents

<sup>B</sup>For students with Chemistry 12 and Algebra 12 or Mathematics 12 or equivalents

<sup>C</sup>For students with at least "B" standing in Chemistry 12 and Algebra 12

<sup>D</sup>For students with at least "B" standing in CHEM 140

<b>Second Year</b>	
BIOC 200	(1½)
BIOL 200	(1½)
CHEM 213/222/231/235/245	(7½ or 6*)
MATH 200	(1½)
MICR 200	(3)
Other courses (Electives)	(0 or 1½*)
*If CHEM 245 completed previously	

<b>Third Year</b>	
BIOC 300	(3)
BIOC 380 or MICR 380	(0)
CHEM 323/324/335/338/345/346	(9)
MICR 301/302	(3)

<b>Fourth Year</b>	
Two of BIOC 401/403/404/405	(3)
BIOC 406 or MICR 406	(3)
BIOC 480 or MICR 480	(1½)
CHEM 312/433	(3)
CHEM 424 or other 400 level Chemistry course with permission of department	(1½)
Two of MICR 401/402/403/404/405	(3)

## COMBINED PROGRAMS IN CHEMISTRY AND MATHEMATICS

For a B.Sc. degree in the Combined Chemistry and Mathematics Program students may take a Major or Honours program. These programs are not joint degrees in Chemistry and Mathematics, but a single degree

program composed of a selected combination of courses from each of the departments. Students opting for either of these combined programs must contact the Chemistry and Mathematics Departments and each student will be assigned an adviser from each of these departments. Students considering proceeding to graduate work in either Chemistry or Mathematics must consult with their adviser prior to making their final choice of courses.

A student graduating in the combined Honours program is required to obtain a 6.50 or higher graduating average and a grade point average of 6.50 or higher over the group of required 300 and 400 level courses in chemistry and mathematics in order to obtain a First Class Honours degree. To obtain a Second Class Honours degree a student is required to obtain at least a 4.00 graduating average.

### First and Second Year (Major or Honours)

CHEM 100 <sup>A</sup> , or 101 <sup>B</sup> , or 140 <sup>C</sup>	(1½)
CHEM 102, or 245 <sup>D</sup>	(1½)
CHEM 213/222/231/235/245	(7½ or 6*)
Two of C SC 110, 112 and 115	(3)
MATH 100/101/200/201/233A/233C	(9)
Two of PHYS 110 (or 125)/120/220	(3)
Other courses (Electives)	(4½ or 6*)

<sup>A</sup>For students with Chemistry 11 and Algebra 12 or Mathematics 12 or equivalents

<sup>B</sup>For students with Chemistry 12 and Algebra 12 or Mathematics 12 or equivalents

<sup>C</sup>For students with at least "B" standing in Chemistry 12 and Algebra 12

<sup>D</sup>For students with at least "B" standing in CHEM 140

\*If CHEM 245 completed previously instead of 102

### Third and Fourth Year (Major)

(All courses listed below must be 300 level or above)

CHEM 312/323/324/345/346/444 (or 425)/446	(10½)
MATH 325/326/330A/330B/333A	(7½)
One of MATH 333C, 422 or 423	(1½)
Course chosen from the Mathematics Department in consultation with that Department	(1½)
Course(s) chosen in consultation with the Chemistry and Mathematics Departments	(3)
Other courses (Electives)	(6)

### Third and Fourth Year (Honours)

(All courses listed below must be 300 level or above)

All Chemistry courses listed under Major program plus	(10½)
CHEM 399/499	(4)
MATH 333A/333C/334/336/338/445A/B	(10½)
Course(s) chosen from the Mathematics Department in consultation with the Mathematics Department	(3)
Other courses (Electives)	(3)

Some possible courses which might be used to fulfill the chosen units in the above programs are: CHEM 306; 318; 335; 338; 424; 425; 444; C SC 349A; 349B; MATH 352, 368A, 368B (for Honours, 325 and 326); STAT 353\*; 354\*.

\*These courses have STAT 250 and 251 as prerequisites, which would have to be included in the student's program as options.

## UNDERGRADUATE COURSES

The names of faculty instructing courses, together with the required and recommended texts for each course, may be obtained from the Department.

*Students formerly enrolled in Chemistry who have taken courses no longer listed in the Calendar should consult the Department to determine which of the courses taken may count as prerequisites for those currently listed.*

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### CHEM 100 (1½) INTRODUCTION TO CHEMISTRY

Introduction to the modern theory of atomic structure and its relation to chemical bonding, molecules, states of matter, aqueous ionic equilibrium; introduction to organic chemistry. This course includes a laboratory illustrating the behaviour of chemical systems and some of the basic techniques associated with quantitative chemical experimentation. (Credit will not be given for both this course and any of 101, 103, 120, 124, or 140.) (Prerequisites: Algebra 12 (or Mathematics 12) and Chemistry 11 or their equivalents) (NOTE: The workload in this course is very heavy and it is strongly recommended that students enrolling in it take a reduced course load.)

F(4-3)

**CHEM 101 (1½) FUNDAMENTALS OF CHEMISTRY: I**

Introduction to the modern theory of atomic structure and its relation to chemical bonding, molecules, states of matter; introduction to organic chemistry. This course includes a laboratory illustrating the behaviour of chemical systems and some of the basic techniques associated with quantitative chemical experimentation. (Credit will not be given for both this course and any of 100, 103, 124, or 140.) (*Prerequisites:* Algebra 12 (or Mathematics 12) and Chemistry 12 or their equivalents. Note that 100 is available to students without Chemistry 12.) FS(3-3)

**CHEM 102 (1½) FUNDAMENTALS OF CHEMISTRY: II**

Basic physical chemistry including thermodynamics, electrochemistry, and equilibrium in chemical systems; introduction to inorganic chemistry. This course includes a laboratory illustrating the behaviour of chemical systems and some of the basic techniques associated with quantitative chemical experimentation. (Credit will not be given for both this course and any of 103, 124, or 145. Students with 100 must register in special sections of 102 which have 4 lectures a week.) (*Prerequisite:* 100 or 101 or 140) S(3-3)

**CHEM 140 (1½) PRINCIPLES OF CHEMISTRY**

Introduction to modern atomic structure and molecular orbital theory and their relation to chemical bonding, molecules, and states of matter; introduction to inorganic chemistry. This course includes a laboratory illustrating the behaviour of chemical systems and some of the basic techniques associated with quantitative chemical experimentation. (Designed for students with a good preparation in Chemistry and Mathematics who wish to take a challenging course in Chemistry and who feel confident in proceeding at an accelerated pace.) (Credit will not be given for both this course and any of 100, 101, 120, or 124.) (*Prerequisites:* At least a B standing in Chemistry 12 and Algebra 12 or their equivalents. If there is any uncertainty, a placement examination may be given. *Pre- or corequisite:* MATH 100) F(3-3)

**CHEM 213 (1½) PRACTICAL SPECTROSCOPY**

Elementary theory and applications of infrared, UV-visible, mass, and nuclear magnetic resonance spectroscopy to inorganic and organic compounds. (Credit will not be given for both this course and 233 or 314 or 316.) (*Pre- or corequisite:* 231) F(3-3)

**CHEM 222 (formerly half of 224) (1½) INTRODUCTION TO INORGANIC CHEMISTRY**

Fundamental concepts of inorganic chemistry, with emphasis on periodicity, structure, bonding and reactivity; principles will be illustrated using the chemistry of selected groups of elements. (*Prerequisite:* 102 or 140 with at least a B grade) SK(3-4)

**CHEM 231 (formerly half of 230/233) (1½) INTRODUCTORY ORGANIC CHEMISTRY**

Functional group survey; acyclic stereochemistry; mechanism of substitution reactions; synthesis and reactions of alcohols, halides, and others; carbonyl addition reactions; carboxylic acids and their derivatives; overview of synthesis. This course is a prerequisite for all other courses in organic chemistry. (Credit will not be given for both this course and either 230 or 233.) (*Prerequisite:* 100 or 101 or 140, or 120 with permission of the Department) FS(3-0)

**CHEM 232 (formerly half of 230) (1½) ORGANIC CHEMISTRY FOR HEALTH AND BIOLOGICAL SCIENCES**

Conformations of cyclic systems; natural products; carbohydrates, amino acids, proteins, terpenoids, steroids; alkenes, dienes and benzenes; aldol condensations, parallels in biological systems; fatty acid biosynthesis; introduction to spectroscopy; the course is intended for students in biology and those preparing to enter professional schools such as Medicine, Pharmacy, Dentistry, Forestry (see page 26) and Nursing. (Credit will not be given for both this course and any of 230 or 233 or 235.) (*Prerequisite:* 231. *Pre- or corequisite:* 140 with at least a B grade or 102) S(3-4)

**CHEM 235 (formerly half of 233) (1½) ORGANIC CHEMISTRY**

Stereochemistry of cyclic compounds; synthesis and reactions of cyclic ethers (sugars), epoxides, alkenes and alkanes; dienes; benzenes, electrophilic aromatic substitution, arenes; phenols, amines, aminoacids; a continuation of 231 intended for Honours and Major Chemistry students. CHEM 235 is part of a sequence incorporating 335 and 338 and should be taken by any student contemplating further courses in organic chemistry. (Credit will not be given for both this course and any of 230 or 232 or 233.) (*Prerequisite:* 231. *Pre- or corequisites:* 140 with at least a B grade or 102; 213) SK(3-4)

**CHEM 245 (formerly half of 224) (1½) INTRODUCTORY PHYSICAL CHEMISTRY**

Basic physical chemistry including thermodynamics, electrochemistry, properties of solutions, phase equilibria, and chemical kinetics; emphasis will be placed on the extension and application of the theory and principles introduced in Chemistry 100, 101, 102 and 140; the laboratory portion of the course emphasizes physical measurement applied to chemical systems. (Credit will not be given for both this course and 145.) (*Prerequisites:* 102 or 140 with at least a B grade; MATH 100 or 102 with at least a B grade. *Pre- or corequisite:* MATH 101) FS(3-4)

**CHEM 300 (3) CHEMISTRY IN MODERN SOCIETY**

This course is intended for *nonscientists*, and will consist of lectures, demonstrations, class experiments and discussions. This course is designed to show the relevance of chemistry to modern life by examination of such topics as drugs, agricultural and military chemicals, energy and petroleum, plastics, soaps and detergents, food, air and water pollution. Students will be encouraged to keep abreast of controversial chemical issues by discussions which will place emphasis on the correct application of the scientific facts as opposed to misleading applications or speculations. A detailed syllabus is available from the Department. (*Prerequisite:* Successful completion of at least 15 units of university credit. This course may be appropriate for students who have taken a first year chemistry course, but who do not plan on taking further courses in chemistry. Credit may not be obtained for both 300 and any other Chemistry course numbered 200 and above.) Y(3-0)

**CHEM 302 (1½) INDUSTRIAL CHEMISTRY WITH SPECIAL REFERENCE TO AIR POLLUTION**

Chemical principles used in the manufacture of commodity chemicals, fertilizers, explosives, and in the mining and smelting industries. Problems and methods of emission control, by product utilization and waste disposal, with particular reference to gaseous discharges. Elements of gaseous dispersal procedures and limitations, air pollution chemistry. (NOTE: This course is primarily designed for students who are not majoring in Chemistry. Credit will not be given for both 302 and 306.) (*Prerequisite:* 102 or 140 with at least a B grade) F(3-0)

**CHEM 303 (1½) INDUSTRIAL CHEMISTRY WITH SPECIAL REFERENCE TO WATER POLLUTION**

Chemical principles used in the petroleum production and refining, petrochemical, pulp and paper, and fermentation industries. Emission problems and their control, by-product utilization and waste disposal into soil, water and air. Assimilatory capacities, eutrophication, and natural and manmade control and recovery procedures for water pollutants. (NOTE: This course is primarily designed for students who are not majoring in Chemistry. Credit will not be given for both 303 and 306.) (*Prerequisite:* 231. *Pre- or corequisite:* 232 or 235) S(3-0)

**CHEM 306 (1½) INTRODUCTION TO THE CHEMICAL PROCESS INDUSTRIES**

A comparative discussion of a number of chemical industries and the details of their processes. To include unit operations, unit processes and economics. (NOTE: This course is primarily designed for students taking a Chemistry program. Credit will not be given for both 306 and 302 or 303.) (*Prerequisites:* 231 and 245. *Pre- or corequisites:* 222 and 232 or 235) S(3-0)

**CHEM 312 (1½) INTRODUCTORY QUANTITATIVE ANALYSIS**

An introduction to the basis of quantitative analytical chemistry, treatment of data and chemical equilibrium. Solution equilibria will be used as the chemical basis for some of the most commonly used chemical instrumental methods, namely potentiometry, chromatography, ultraviolet/visible and atomic absorption spectrometry. (Normally, credit cannot be obtained for 312 and 316 or 317.) (*Prerequisite:* 145 or 245, or 232 or 235 with permission of Department) FK(3-3)

**CHEM 318 (1½) INSTRUMENTAL TECHNIQUES OF ANALYSIS**

Theory and applications of the most generally applied methods of chemical analysis such as infrared, raman and emission spectroscopy, polarography, high performance liquid chromatography, radiochemical analysis etc. (Normally, credit cannot be obtained for 318 and 316 or 317.) (*Prerequisite:* 213 and 312) S(3-3)

**CHEM 323 (1½) INTRODUCTION TO ORGANOMETALLIC CHEMISTRY**

Structure and reactivity of organometallic compounds of the s and p block metals. Transition metal carbonyl chemistry. Hydrocarbon complexes of the transition metals: M.O. description of bonding, reactivity

of coordinated polycycloolefins. Transition metal alkyls and allyls, insertion and oxidative addition reactions, organotransition metal complexes in catalysis. (*Prerequisite:* Chemistry 222) S(2-3-1)

#### **CHEM 324 (1½) INTRODUCTION TO TRANSITION METAL CHEMISTRY**

Introduction to transition metal and coordination chemistry. Principles of molecular symmetry and group theory. Electronic structure of transition metal complexes (crystal field theory). Chemistry of the transition elements from Ti to Zn. (*Prerequisite:* 222) F(3-3)

#### **CHEM 335 (1½) SYNTHETIC METHODS IN ORGANIC CHEMISTRY**

Spectroscopy, design of syntheses in aliphatic, aromatic and some biomolecules. Aliphatic systems; carbanions, conjugated carbonyl compounds, amines in syntheses, functional group modifications. Aromatic systems; aromatic substitution processes, reactive substrates (phenols, amines), polynuclear aromatics. Biomolecules; synthesis and modification of heterocycles and carbohydrates. (CHEM 335 and 338 may be taken in either order.) (*Prerequisite:* 213 and 235, or 232 with permission of the Department) S(3-3)

#### **CHEM 336 (1½) INTRODUCTORY POLYMER CHEMISTRY**

Principles and practice of polymerization, copolymerization and basic polymer kinetics. Structure property relationships for typical organic polymer groups. Polymer technology. The laboratory is designed to acquaint students with procedures for polymer identification, polymerization/depolymerization process, determination of physical properties, and simple fabrication. (*Prerequisite:* 232 or 235) F(3-3)

#### **CHEM 338 (1½) SELECTED TOPICS IN ORGANIC STRUCTURE AND REACTIVITY**

Methods of studying mechanisms, reactive intermediates, rearrangements and neighbouring group effects, dissociative and associative pathways, organic photochemistry, electrocyclic reactions. (CHEM 338 and 335 may be taken in either order.) (*Prerequisite:* 235) F(3-3)

#### **CHEM 345 (1½) THERMODYNAMICS, SOLUTIONS AND ELECTROCHEMISTRY**

Chemical thermodynamics. Properties of solutions. Electrochemistry. (CHEM 345 and 346 may be taken in either order.) (*Prerequisites:* 245 and MATH 200) S(3-3)

#### **CHEM 346 (1½) GASES, LIQUIDS AND CHEMICAL KINETICS**

Properties of gases and liquids. Kinetic molecular theory. Phase equilibria. Chemical kinetics. (CHEM 345 and 346 may be taken in either order.) (*Prerequisites:* 245 and MATH 200) FK(3-3)

#### **CHEM 399 (1) RESEARCH PARTICIPATION AND SEMINAR**

Introduction to Departmental research. Seminar report. For Chemistry Honours students only. (Grading: COM, N, or F) F(3-0)

#### **CHEM 411 (1½) ADVANCED INSTRUMENTAL ANALYSIS**

Advanced topics in instrumental analysis which will include some of the following: mass spectrometry, x-ray spectroscopy, advanced electrochemical methods, EPR, etc. Included will be a discussion of electronic data acquisition and manipulation as used in modern chemical instrumentation. (*Prerequisite:* 318, or 316 and 317) S(3-3)

#### **CHEM 424 (1½) ADVANCED TRANSITION METAL CHEMISTRY**

A more advanced consideration of transition metal chemistry designed to build on the principles established in Chemistry 323 and 324. Emphasis will be given to the chemistry of 2nd and 3rd row transition elements together with special topics such as carbonyl and cluster chemistry, and bio-inorganic chemistry. (*Prerequisites:* 323 and 324) (Not open for credit to students with credit in 325 or 422) FK(3-3)

#### **CHEM 425 (1½) PHYSICAL INORGANIC CHEMISTRY**

Applications of group theory in inorganic chemistry. Molecular orbital theory and electronic spectra of transition metal complexes. Kinetics and mechanisms of inorganic reactions. (*Prerequisites:* 213 and 324) (Not open for credit to students with credit in 325 or 422) S(2-3-1)

#### **CHEM 433 (1½) ORGANIC STRUCTURE DETERMINATION: THE CHEMISTRY OF NATURAL PRODUCTS**

Elucidation of the structures of organic compounds from spectral information. The chemistry of several classes of natural products, including examples demonstrating structural elucidation, synthesis, and biogenesis. (*Prerequisites:* 335 and 338) FK(3-3)

#### **CHEM 434 (1½) PHYSICAL ORGANIC CHEMISTRY**

Mechanisms of organic reactions. Reactive intermediates. Structural and solvent effects on reactivity. (*Prerequisites:* 335 and 338) S(3-3)

#### **CHEM 444 (1½) ADVANCED PHYSICAL CHEMISTRY**

Mathematical treatment of chemical processes; statistical thermodynamics, theories of reaction and their application to solution and gas phase reactions. Theory of electrolyte solutions. Electrode kinetics. Thermodynamics and phenomenology of surfaces. Heterogeneous catalysis. Colloidal systems. (*Prerequisites:* 345 and 346 and MATH 200) S(3-3)

#### **CHEM 446 (1½) QUANTUM CHEMISTRY**

The basic principles of quantum mechanics and their application to simple physical models and to chemical systems, including the use of semi-empirical methods. Molecular spectroscopy and symmetry. (*Prerequisites:* 213 and 245, and MATH 201) F(3-3)

#### **CHEM 490 (1½) DIRECTED STUDIES**

In special cases the Department of Chemistry may give permission for individual studies and directed readings to be taken as 490. CHEM 490 may be taken more than twice only in different areas of chemistry.

490A Readings in Analytical Chemistry

490B Studies in Analytical Chemistry

490C Readings in Inorganic Chemistry

490D Studies in Inorganic Chemistry

490E Readings in Organic Chemistry

490F Studies in Organic Chemistry

490G Readings in Physical Chemistry

490H Studies in Physical Chemistry

490J Readings in Theoretical Chemistry

490K Studies in Theoretical Chemistry

#### **CHEM 499 (3) THESIS**

Experimental research under the direction of faculty. This course is designed primarily for Chemistry Honours students, but Chemistry Major students may be granted permission by the Department to take the course as an elective. (Grading: Letter grade; INP) (0-6;0-6)

## **GRADUATE COURSES**

*Students should consult the Department to determine the graduate courses offered in any particular year.*

#### **CHEM 509 (1) SEMINAR**

(Grading: INP, COM, N or F)

#### **CHEM 510 (1½) INSTRUMENTAL TECHNIQUES**

**CHEM 522 (1½ or 3) CURRENT TOPICS IN INORGANIC CHEMISTRY**  
(Offered as 522A, 522B, 522C, 522D)

#### **CHEM 523 (1½ or 3) ORGANOMETALLIC CHEMISTRY**

#### **CHEM 525 (1½ or 3) THEORETICAL INORGANIC CHEMISTRY**

#### **CHEM 526 (1½ or 3) TOPICS IN ADVANCED INORGANIC CHEMISTRY**

#### **CHEM 533 (1½ or 3) ORGANIC SYNTHESIS**

#### **CHEM 545 (1½ or 3) REACTION KINETICS AND REACTION RATE THEORY**

#### **CHEM 546 (1½ or 3) SPECTROSCOPY AND THE CHEMISTRY OF EXCITED STATES**

#### **CHEM 550 (1½ or 3) CHEMICAL APPLICATIONS OF GROUP THEORY**

#### **CHEM 554 (1½ or 3) APPLIED QUANTUM MECHANICS**

#### **CHEM 555 (1½ or 3) STATISTICAL MECHANICS**

#### **CHEM 556 (1½ or 3) TOPICS IN ADVANCED PHYSICAL CHEMISTRY**

#### **CHEM 565 (1½ or 3) THEORY AND APPLICATION OF NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY**

#### **CHEM 566 (1½ or 3) CRYSTALLOGRAPHY AND CHEMISTRY OF THE SOLID STATE**

#### **CHEM 590 (1-3) DIRECTED STUDIES**

**CHEM 599 (Credit to be determined but normally 9 units in this**

**Department), M.SC. THESIS** (Grading: INP, COM, N or F)

**CHEM 630 (1½ or 3) CURRENT TOPICS IN ORGANIC CHEMISTRY**  
(Offered as 630A, 630B, 630C, 630D)

**CHEM 633 (1½ or 3) TOPICS IN ADVANCED ORGANIC CHEMISTRY**

**CHEM 634 (1½ or 3) ADVANCED PHYSICAL ORGANIC CHEMISTRY**

**CHEM 636 (1½ or 3) CHEMISTRY OF HETEROCYCLIC COMPOUNDS**

**CHEM 638 (1½ or 3) CHEMISTRY OF NATURAL PRODUCTS**

**CHEM 644 (1½ or 3) CURRENT TOPICS IN PHYSICAL CHEMISTRY**  
(Offered as 644A, 644B, 644C, 644D)

**CHEM 645 (1½ or 3) ADVANCED ELECTROCHEMISTRY**

**CHEM 699 (Credit to be determined, but normally 27 units) PH.D. DISSERTATION**  
(Grading: INP, COM, N or F)

## DEPARTMENT OF CLASSICS

John P. Oleson, B.A., M.A., Ph.D. (Harvard), Professor and Chairman of the Department

Keith R. Bradley, B.A., M.A. (Sheffield), B.Litt. (Oxon.), Professor

David A. Campbell, M.A. (Glasgow), M.A. (Oxon.), Professor

Peter L. Smith, B.A. (Brit. Col.), M.A., Ph.D. (Yale), Professor

John G. Fitch, B.A., M.A. (Cantab.), Cert. Ed. (Leeds), Ph.D. (Cornell), Associate Professor

Samuel E. Scully, B.A., M.Litt. (Bristol), Ph.D. (Tor.), Associate Professor

Gordon S. Shrimpton, B.A., M.A. (Brit. Col.), Ph.D. (Stanford), Associate Professor

Andrew N. Sherwood, B.A. (Calg.), M.A. (U. of Vic.), M.A. (Prin.), Visiting Lecturer (1987-88)

### GRADUATE PROGRAMS

For information on studies leading to the M.A. degree, see page 219, for graduate courses, see page 57.

### GENERAL, MAJOR AND HONOURS PROGRAMS

The Department of Classics offers the student an opportunity to study Classics at any of three levels of concentration: General, Major and Honours Programs.

The General Program does not necessarily involve language study. The Major and Honours Programs do include the study of classical languages. For the Major and Honours Programs, the Department accommodates three kinds of emphasis in the study of classical languages: ancient Greek, Latin, and Classics (study of both Latin and Greek). It is supposed that students following the General or Major Program will be taking advanced courses in other departments. Students following an Honours Program with the Classics Department should note that it may be possible for them to complete an honours program in another field, if they have the joint consent of that department and the Department of Classics.

Students are welcome at any time to discuss their programs with members of the Department and are encouraged to do so as early as possible in the course of their studies at the University. The planning of one's program is important, since failure to complete prerequisites for advanced courses may seriously limit the type of degree open to a student.

#### General:

- 3 units of Departmental offerings normally at the 100 or 200 level.
- 9 units of Departmental offerings numbered 300 or above.

#### Major in Classical Studies:

- 6 units of Greek and/or Latin language at the 100 or 200 level.
  - 3 units of Classical Studies normally at the 100 or 200 level.
  - 9 units of Classical Studies at or above the 300 level.
  - 6 units of Departmental offerings (i.e. language courses or classical studies) at or above the 300 level.
- 24 Total

#### Major in Classical Studies: Ancient History Emphasis

- 6 units of Greek and/or Latin language at the 100 or 200 level.
  - 3 units of Classical Studies normally at the 100 or 200 level.
  - 12 units of Ancient History as follows:  
CLAS 330, 480A and 490;  
CLAS 340, 480C and 491.
  - 3 units of Departmental offerings at or above the 300 level.
- 24 Total

**N.B.** Students interested in majoring in Classical Studies: Ancient History Emphasis are urged to consult the Majors adviser in their first year if possible. Majors must obtain the Adviser's approval for their third and fourth year programs.

#### Major in Classics:

##### 1. Greek Emphasis:

- GREE 100
  - GREE 200
  - GREE 300 (corequisite or prerequisite for other advanced Greek courses).
  - 3 units of Departmental offerings normally at the 100 or 200 level.
  - 6 units of Greek or 3 of Latin and 3 of Greek at or above the 300 level.
  - 6 units of Departmental offerings (i.e. language courses or classical studies) at or above the 300 level.
- 24 Total

##### 2. Latin Emphasis:

- LATI 100
  - LATI 200
  - LATI 300 (corequisite or prerequisite for other advanced Latin courses).
  - 3 units of Departmental offerings normally at the 100 or 200 level.
  - 6 units of Latin or 3 units of Latin and 3 of Greek at or above the 300 level.
  - 6 units of Departmental offerings (i.e. language courses or classical studies) at or above the 300 level.
- 24 Total

#### Honours:

Students who are of good general standing, and who have achieved a first class or high second class standing in Latin and/or Greek at the 100 and 200 level, may be admitted, with Departmental permission, into an intensified Honours program. The Honours program features the core courses LATI/GREE 300 and 400. These courses combine reading with advanced study of grammar and syntax. Translation at sight will be done regularly, and some composition may be undertaken.

#### First and Second Years:

- GREE 100
- LATI 100
- LATI and/or GREE 200

NOTE: CLAS 100 is strongly recommended; ENGL 121, 122 and any English course at 200 level are recommended.

#### Third and Fourth Years:

Required courses in the Third and Fourth years will normally not exceed 24 units out of the total program of 30-36 units. Requirements listed below may be completed in any year by a student who has the prerequisites.

#### Greek Honours:

- GREE 300
- GREE 400
- 9 additional units in Greek numbered above 300
- LATI 300
- CLAS 330 or 3 units of History chosen from GREE 390, 490 and CLAS 480A.

#### Latin Honours:

- LATI 300
- LATI 400
- 9 additional units in Latin numbered above 300
- GREE 300
- CLAS 340 or 3 units of History chosen from LATI 390, 490 and CLAS 480C.

#### Classics Honours:

- GREE 300
- GREE 400
- LATI 300
- LATI 400

- (e) 9 additional units in Greek and/or Latin at or above the 300 level.  
 (f) CLAS 330 or 3 units of Greek History chosen from GREE 390, 490 and CLAS 480A.  
 (g) CLAS 340 or 3 units of Roman History chosen from LATI 390, 490, and CLAS 480C.

NOTE: It is recommended that all graduating Honours students acquire a reading knowledge of German, French, or Italian.

*Recommended* as an elective to Third and Fourth Year General, Major and Honours students: Liberal Arts 306/307.

To obtain a First Class Honours Degree a student must achieve (1) a graduating average of at least 6.50, (2) a grade point average of at least 6.50 in those Departmental courses at the 300 and 400 level that are required for the degree program, and (3) a grade of at least B+ in any required 400 level language course.

To obtain a Second Class Honours Degree a student must achieve (1) a graduating average of at least 3.50, (2) a grade point average of at least 3.50 in those Departmental courses at the 300 and 400 level that are required for the degree program, and (3) a grade of at least C+ in any required 400 level language course.

A student who fails to meet Departmental requirements for first class standing in the Honours program but has a first class graduating average will be offered the choice between Second Class Honours and a First Class Major Degree. A student who fails to meet Departmental requirements for second class standing but has a second class graduating average will be offered a Second Class Major Degree.

#### Directed Reading/Study Courses

Subject to the availability of faculty and in consideration of student demand, the above courses will be offered from time to time under the designated headings A, B, C, etc. in the regular winter session. Outstanding students who may wish to undertake these courses as Summer Studies courses should apply to the Department for permission. Each subdivision of Greek and Latin 390 and 490 is considered a distinct course and cannot be taken twice for credit. Students who wish to explore an area of ancient literature in some depth should choose carefully from Departmental offerings.

## UNDERGRADUATE COURSES

### CLASSICAL STUDIES

**A knowledge of the Greek and Latin languages is not required for the following courses.**

CLAS 100 is designed primarily as an elective for students in all fields. Any student in Second Year who has successfully completed 100 should take either a course in Latin or Greek or a Classical Studies course at the 200 or 300 level. *First Year students may take Classical Civilization courses above the 200 level only with Department permission. Any student in Second Year may register for courses in Classical Studies at the 300 level. CLAS 100 may not be taken by students who have already received credit for any courses in Classical Studies at the 300 level.*

Appropriate credit in the Department of History may be given for CLAS 330 or 340 or 480A or 480C. PHIL 421 and 422 are acceptable for credit in all programs in the Department of Classics in lieu of any 400 level course in Classical Studies.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### CLAS 100 (3) GREEK AND ROMAN CIVILIZATION

An approach to the civilization of Greece and Rome through the evidence of literature, history, and archaeology. Attention will be focused upon those aspects of ancient cultural and intellectual growth that are of significance in the western tradition. Emphasis will be placed upon the Minoan and Mycenaean civilizations, 5th century Athens, and Augustan Rome. Essays will be required and there will be a written examination. Readings will include Homer's *Iliad* and *Odyssey*; selections from Herodotus and Thucydides, Sophocles' *Oedipus The King* and other representative Greek dramas, selected dialogues of Plato, Livy, *The Early History of Rome*, Vergil's *Aeneid* and part of Ovid's *Metamorphoses*, and other representative texts.

G.S. Shrimpton

Y(3-0)

#### CLAS 200 (1½) MYTHOLOGY OF GREECE AND ROME

A study of the origins of classical myth, its expression in the literature and art of ancient Greece, and its further development in the Roman experience. Topics will include cosmic and divine myth; heroic saga; the influence of classical myth on later European culture. Consideration will be given to various modern systems of analysis and interpretation. Texts: Hesiod, *Theogony*; Euripides, *Bacchae*; Ovid, *Metamorphoses*; Morford and Lenardon, *Classical Mythology*

F(3-0)

#### CLAS 250 (1½) THE CONTRIBUTION OF GREEK AND LATIN TO THE ENGLISH LANGUAGE

Out of 20,000 common words in English, 10,000 came from Latin directly or through French. The Greek element is also impressive, particularly in the ever-expanding vocabulary of science. Among topics studied will be the Greek script, principles of transliteration, the formation of nouns, adjectives and verbs, hybrid words, neologisms and semantic changes.

P.L. Smith

S(3-0)

#### CLAS 300 (1½) CLASSICAL EPIC

A study of Greek and Roman epic poetry. Particular attention will be paid to Homer's *Iliad* and Vergil's *Aeneid* and their place within the epic tradition. Students will be expected to read Homer's *Odyssey*: Selections of some of the following authors will also be studied: Apollonius of Rhodes and Valerius Flaccus (for the Golden Fleece legend), Statius (for the "Seven Against Thebes"), Lucan (for the epic on Caesar and Pompey), Claudian (for the Rape of Persephone) and Quintus of Smyrna (for the continuation of Homer's *Iliad*). (*Prerequisite*: 100 or permission of the Department) Texts: Homer's *Iliad* and *Odyssey* (Lattimore's translation preferred); Vergil's *Aeneid* (Copley's translation preferred); others to be announced.

NO(3-0)

#### CLAS 301 (formerly 201) (1½) TRADITION AND ORIGINALITY IN CLASSICAL LITERATURE

A comparative study of the content and form of major works by Greek and Roman writers. The course will concentrate on the important genre of didactic poetry, together with one or more genres to be chosen from the following: biography, philosophy, lyric poetry, tragedy, pastoral poetry, oratory. The following will be among the topics discussed: What part does imitation or the adaptation of traditional material play in classical literature? How can a creative writer be original while working within a strong tradition? Texts for didactic: Hesiod, *Works and Days*; Lucretius, *The Ways Things Are*; Vergil, *Georgics*; Ovid, *The Art of Love*. Texts for other genres: to be announced.

NO(3-0)

#### CLAS 320 (1½) GREEK TRAGEDY

The origins and developments of tragic drama in ancient Greece. The study, in English translation, of representative plays of Aeschylus, Sophocles and Euripides. (*Prerequisite*: None; 100 or 200 or 301 recommended)

F(3-0)

#### CLAS 322 (formerly part of 321) (1½) GREEK AND ROMAN DRAMA

Special attention will be given to the various forms of Greek comic and nontragic drama and their development in the Roman world. Major emphasis will be on Aristophanes, Euripides, Menander, Plautus and Terence. Study of Roman drama may include analysis of representative plays of Seneca. (*Prerequisite*: None; 100 or 200 or 301 or 320 recommended)

S(3-0)

#### CLAS 330 (3) GREEK HISTORY

Early Aegean civilizations; the rise of the Greek city-state, with special emphasis on the political, economic, and cultural achievements of the 5th and 4th centuries B.C.; the Hellenistic world. (Outside reading includes selected works listed on the biographical sheets distributed at the beginning of lectures. One essay is required in the first term and one in the second term.) Texts: Bury-Meiggs, *A History of Greece*; Plutarch, ed. Edmund Fuller, *Lives of the Noble Greeks*; Herodotus, *The Histories*; Thucydides, *The History of the Peloponnesian War*

NO(3-0)

#### CLAS 335 (1½) WOMEN AND THE FAMILY IN CLASSICAL ANTIQUITY

A survey of Greek and Roman attitudes towards the place of women and the family in ancient society, and comparison of traditional ideas with historical reality; particular topics studied will depend on the interests of the instructor, but may include the following: the role of women in law, religion, and the economy; family structure and concepts of love and affection; marriage and childbearing practices. (*Prerequisite*: None; 100 or 300 or 340 recommended) Texts: Readings from Greek and Roman authors in translation, and secondary sources recommended by the instructor

NO(3-0)

#### CLAS 340 (3) ROMAN HISTORY

A survey of Roman history from earliest historical times until the age of Constantine. Emphasis falls on the creation of Rome's empire, the transition from government by senate to rule by emperor, and the nature of Roman imperialism.

K.R. Bradley

Y(3-0)

**CLAS 345 (1½) SLAVERY IN THE ROMAN WORLD**

Introduction to the fundamental importance of slavery as a component part of Roman society from c.250 B.C. to c.A.D. 300, a period in which Rome was a true slave society. Representative texts from classical authors will be examined in order to ascertain the main characteristics of Roman slavery; and students will be expected to conduct their own research topics. Some comparison of ancient (Greek and Roman) with modern slavery will be encouraged.

K.R. Bradley

F(3-0)

**CLAS 346 (1½) ROMAN LAW AND SOCIETY**

An introduction to Roman law in its social context. Beginning with an outline of the sources and the historical development of Roman law, the course will give detailed attention to such aspects of Roman private law as the law of persons, property, marriage, labour, slavery and commerce. The emphasis throughout will be on the impact of law on Roman social relations. Attention will also be given to trial procedures in criminal cases, and the role of law in Roman public life. (*Prerequisite:* None, but 340 recommended)

K.R. Bradley

S(3-0)

**CLAS 371 (1½) ART AND ARCHITECTURE OF ANCIENT GREECE AND THE AEGEAN**

An introduction to art and architecture in Greece and the Aegean from the Early Bronze Age through the Hellenistic period. Architecture, sculpture, and the minor arts are examined as evidence for cultural attitudes towards man, the gods, the physical world, and the exploration of form, color, and movement. Emphasis is placed on the careful discussion of selected monuments illustrated through slides, casts, and photographs. (No prerequisite) (Credit will not be given for both 371 and HA 316.)

G.S. Shrimpton

F(3-0)

**CLAS 372 (1½) ART AND ARCHITECTURE OF THE ROMAN WORLD**

A survey of Roman art and architecture relating the political and social development of the Roman people to their artistic expression. After an examination of Etruscan art and architecture for its formative influence on Roman attitudes, Republican and Imperial Roman art are discussed in the context of historical events. Topics include the special character of Roman art, Hellenized and Italic modes of expression, portraiture, historical reliefs, function in art, architectural space and city planning. (No prerequisite) (Credit will not be given for both 372 and HA 317.)

J.P. Oleson

S(3-0)

**CLAS 375 (1½) CITIES AND SANCTUARIES OF THE ANCIENT WORLD**

An examination of selected Greek, Etruscan and Roman city and sanctuary sites in an evaluation of ancient achievements in sacred and secular architecture, urban planning, and sanctuary development. Emphasis will be placed on the changing response to man's needs for an artificial framework for living, along with the natural resources of the environment in antiquity. Each site will be examined by means of illustrated lectures, and careful consideration will be given to both the archaeological record and the ancient literary sources. (Offered alternately with 376)

F(3-0)

**CLAS 376 (1½) ANCIENT SCIENCE AND TECHNOLOGY**

An introduction to the scientific thought of the Greek and Roman world with special reference to applied technology. Evidence will be drawn from both ancient authors and archaeological remains from the Archaic period through the late Empire, with emphasis on the growth and capabilities of Roman Technology. Special topics will include machinery and gadgets, mass production, engineering, nautical technology, labour, medicine, and geography. (Offered alternately with 375)

NO(3-0)

**CLAS 379 (PHIL 379) (formerly one-half of 207) (1½) EARLY GREEK HISTORICAL AND PHILOSOPHICAL THOUGHT**

A study of the transition from the prescientific, mythical world view to the more "scientific" ways of explaining the nature of the cosmos, man's place in it, and the course of human history. An attempt will be made to assess the intellectual and social significance of this development by placing in their historical context the writings of the philosophers and historians from the early 6th Century to the time of Socrates and the Sophists. Some attention will also be given to the literature and art of the period. Taught jointly by members of the Classics and Philosophy Departments.

NO(3-0)

**CLAS 380 (1½) THE LIFE AND TIMES OF SOCRATES**

An examination of a critical moment in Greek intellectual and political

life, as seen from various points of view. Topics include: the teaching methods of Socrates and the Sophists, the political background of his trial, the religious and social questions involved, and types of Socratic literature. The approach to the course will not be primarily philosophical; rather, an attempt will be made to see why his challenge to conventional Athenian morality so deeply influenced his fellow citizens, and to explain why he appears as one of the most fascinating personalities of world history. Texts: Aristophanes *Clouds*, Plato *Euthyphro*, *Apology*, *Crito*, *Protagoras*, Xenophon *Memoirs of Socrates* and selections from other authors.

S.E. Scully

S(3-0)

**CLAS 381 (1½) ANCIENT RELIGIONS**

An introduction to religious thought and practice with particular reference to the Roman world. Some consideration will be given to religion in major Latin writers such as Cicero, Lucretius, Catullus, Tibullus, Propertius, Vergil, Horace and Ovid. There will be a brief review of Judaism and Christianity in the early Empire. Exotic religions — Mithraism, the mysteries of Cybele, the rites of the Druids, the cult of Isis and Osiris — will be studied.

NO(3-0)

**CLAS 480 (1½) SEMINAR IN ANCIENT HISTORY AND ARCHAEOLOGY**

The Department will offer no more than two of the following each year: 480A Seminar in Greek History; 480B Topics in Greek Art and Archaeology; 480C Seminar in the History of the Roman World; 480D Topics in Roman Art and Archaeology. (*Pre-or-corequisite:* for 480A, 330; for 480B, 371; for 480C, 340; for 480D, 372; or, in each case, permission of the Department)

480A G.S. Shrimpton

F(2-0)

480B J.P. Oleson

S(2-0)

**CLAS 490 (1½) DIRECTED STUDY IN GREEK HISTORY**

Intensive study of certain problems in Greek history. Students will be expected to prepare an extended research paper, drawing on both primary and secondary sources. Introduction to epigraphy, numismatics, and papyrology where appropriate.

G.S. Shrimpton

FS(2-0)

**CLAS 491 (1½) DIRECTED STUDY IN ROMAN HISTORY**

Intensive study of certain problems in Roman history. Students will be expected to prepare an extended research paper, drawing on both primary and secondary sources. Introduction to epigraphy, numismatics and papyrology where appropriate.

K.R. Bradley

FS(2-0)

**CLAS 495 (3) ARCHAEOLOGY FIELD WORK SEMINAR**

An introduction to the methods and techniques of Classical Archaeology through participation in an excavation; introductory lectures will be arranged. (*Prerequisite:* Permission of the Department. Interested students should contact the department during the Winter Session.) Texts: Texts and requirements to be determined by the instructor according to circumstances of the excavation and student preparation

NO(3-3)

**GREEK****GREE 100 (3) BEGINNERS' GREEK**

A basic introduction to the Greek language, including the following: the three declensions of the noun; the regular, irregular and contracted verbs; a survey of verbs in *mi*; the main constructions; practice in translating sentences into Greek; sight translation. Tests and examinations will be given during the course of the year. Texts: *Reading Greek: Text and Grammar, Vocabulary and Exercises*

D.A. Campbell

Y(4-0)

**GREE 160 (3) MODERN GREEK**

An introduction to Modern Greek, intended to provide an elementary knowledge of the written and spoken language.

NO(3-1)

**GREE 200 (3) GREEK LANGUAGE AND LITERATURE: I**

The emphasis will be on increased understanding of the language through a reading of selected authors. Example: Homer, Herodotus and Euripides. (*Prerequisite:* 100 or its equivalent) Texts: *Reading Greek: Text and Grammar, Vocabulary and Exercises; A World of Heroes; Liddell and Scott, Intermediate Greek-English Lexicon; Goodwin and Gulick, Greek Grammar*

G.S. Shrimpton, S.E. Scully

Y(4-0)

**GREE 250 (1½) NEW TESTAMENT GREEK**

A study of the language of the New Testament. Selections from the Gospels and from *Acts of the Apostles* will be read. (*Prerequisite*: 100) Text: *The Greek New Testament*, ed. Aland, Black, et al. (United Bible Societies)

D.A. Campbell

S(3-0)

**GREE 300 (3) GREEK LANGUAGE AND LITERATURE: II**

The basic third year course for Major and Honours students; advanced Greek students may take the course in their second year. Selected texts (to be varied to some extent from year to year) will be studied from prose and verse authors. Considerable emphasis will be placed on the ability to translate with accuracy and imagination, particularly from Greek into English. Unprepared translation will be included in the final examination. (*Prerequisite*: 200) Texts: The readings alternate on a two year cycle. In year A, readings are taken from the advanced volumes of the Cambridge reading program; in year B, there will be selections from: Sophocles, *Oedipus Tyrannus*, Euripides, *Medea*, Thucydides, *History*, Plato, *Dialogues*

D.A. Campbell, S.E. Scully

Y(3-0)

(NOTE: 300 will be taught together with 400.)

**GREE 390 (1½) GREEK AUTHORS**

Extensive reading and analysis of major Greek texts. The Department will offer no more than two of the following each year; 390A Homer; 390B Greek Tragedy; 390C Herodotus; 390D Xenophon. (*Prerequisite*: 200)

390B: D.A. Campbell

F(3-0)

390D: G.S. Shrimpton

S(3-0)

**GREE 400 (3) GREEK LANGUAGE AND LITERATURE: III**

The basic fourth year course for Honours students. Sight translation will be regularly practised, and unprepared translation will be included in the final examination. (*Prerequisite*: 300) Texts: see 300 (NOTE: Although this course will be taught together with Greek 300, there will be separate evaluative procedures.)

G.S. Shrimpton, S.E. Scully

Y(3-0)

**GREE 490 (1½) DIRECTED STUDIES IN GREEK**

Depending on the students' interests and on the availability of a supervising instructor, one or more of the following topics may be offered: 490A Homeric Corpus and Hesiod; 490B Greek Lyric Poetry; 490C Greek Tragedy; 490D Greek Comedy; 490E Greek Historians and Rhetoricians; 490F Greek Philosophical Prose. (May be taken more than once for credit in different topics) (*Prerequisite*: Completion of at least 3 units of Greek at the 300 level or above, and Department permission)

(2-0)

**LATIN**

Students with no previous study of Latin or one year of high school Latin will register for LATI 100. Students with two or three years of high school Latin will normally register for LATI 200. All students who have taken high school Latin should consult the Department before enrolling in any Latin course.

**LATI 100 (3) BEGINNERS' LATIN**

No previous knowledge of Latin is required. An introduction to the Latin language with easy readings from Roman authors. Texts: To be announced

P.L. Smith, J.G. Fitch

Y(4-0)

All work at the 200 level or beyond will require a *Cassell's New Latin Dictionary* and *Aller. and Greenough, New Latin Grammar*.

**LATI 200 (3) LATIN LANGUAGE AND LITERATURE: I**

The emphasis will be on an increased understanding of the language through a reading of the authors. (*Prerequisite*: 100 or equivalent) Texts: Selected readings from Latin authors: *Cassell's New Latin Dictionary*; Allen and Greenough, *New Latin Grammar*

Y(4-0)

**LATI 300 (3) LATIN LANGUAGE AND LITERATURE: II**

The basic third year course for Major and Honours students; advanced Latin students may take the course in their second year. The aims will include the development of critical judgement and the appreciation of literary style, through the study of major writers in Latin poetry and

prose. Considerable emphasis will be placed on the ability to translate with accuracy and imagination, particularly from Latin into English. Students will be expected to practise reading aloud from the authors selected, and may be examined on their competence. Unprepared translation will be included in the final examination. (*Prerequisite*: 200) Texts: The readings alternate on a two year cycle. Year A, Cicero, *Pro Caelio*, Horace, *Odes*, Tacitus (selections), Juvenal, *Satires* 1, 3 and 10. Year B, selections from Cicero's *Letters*, Lucretius, *De Rerum Natura*, Ovid, and Seneca

J.G. Fitch, J.P. Oleson

Y(3-0)

(NOTE: 300 will be taught together with 400.)

**LATI 390 (1½) LATIN AUTHORS**

Extensive reading and analysis of major Latin texts. The Department will offer no more than two of the following each year: 390A Vergil, *Eclogues and Georgics*; 390B Vergil, *Aeneid*; 390C Horace; 390D Roman Historians. (*Prerequisite*: 200)

390B: P.L. Smith

F(3-0)

390D: K.R. Bradley

S(3-0)

**LATI 400 (3) LATIN LANGUAGE AND LITERATURE: III**

The basic fourth year course for Honours students. The aims will be similar to those of LATI 300, on a more advanced level. There will be examinations of syntax, metre and stylistics. Sight translation from more difficult authors will be regularly practised, and unprepared translation will be included in the final examination. (*Prerequisite*: 300) Texts: see 300 (NOTE: Although this course will be taught together with 300, there will be separate evaluative procedures.)

J.G. Fitch, J.P. Oleson

Y(3-0)

**LATI 490 (1½) DIRECTED STUDIES IN LATIN**

Depending on the student's interests and on the availability of a supervising instructor, one or more of the following topics may be offered: 490A Roman Comedy and Satire; 490B Roman Philosophical Literature; 490C Prose Authors of the Late Republic; 490D Late Republican and Augustan Poetry; 490E Post-Augustan Poetry; 490F Roman Historians; 490G Post-Augustan Prose. (May be taken more than once for credit in different topics) (*Prerequisite*: Completion of at least 3 units of Latin at the 300 level or above, and permission of the Department)

(2-0)

**GRADUATE COURSES**

Three of the following courses will be offered each academic year, and offerings will rotate according to availability of faculty and student needs. Students shall make their choices in consultation with the Graduate Adviser.

- CLAS 511 (2) EARLY GREEK LITERATURE  
 CLAS 512 (2) GREEK DRAMA  
 CLAS 513 (2) CLASSICAL GREEK PROSE  
 CLAS 521 (2) ROMAN COMEDY AND SATIRE  
 CLAS 522 (2) ROMAN PROSE OF THE LATE REPUBLIC  
 CLAS 523 (2) LATE REPUBLICAN AND AUGUSTAN POETRY  
 CLAS 524 (2) POST-AUGUSTAN POETRY  
 CLAS 525 (2) POST-AUGUSTAN PROSE  
 CLAS 541 (2) GREEK HISTORY  
 CLAS 542 (2) ROMAN HISTORY  
 CLAS 543 (2) CLASSICAL ARCHAEOLOGY  
 CLAS 590 (2) DIRECTED INDIVIDUAL STUDY  
 CLAS 599 (6-9) M.A. THESIS (Grading: INP, COM, N or F)

The unit value of the thesis shall be 6. In exceptional cases more than 6 units may be awarded. Before beginning the thesis the candidate must arrange with his committee and the Graduate Adviser the number of units to be assigned.

## DEPARTMENT OF COMPUTER SCIENCE

D. Michael Miller, B.Sc. (Winn.), M.Sc., Ph.D. (Manit.), Professor and Chairman of the Department

Ian Barrodale, B.Sc. (Wales), M.A. (Brit. Col.), Ph.D. (Liverpool), Adjunct Professor (1986-88)

Maurice Danard, B.A. (Brit. Col.), M.A. (Tor.), Ph.D. (Chicago), Adjunct Professor (1986-88)

Eric G. Manning, B.Sc., M.Sc. (Wat.), Ph.D. (Ill.), F.I.E.E.E., Adjunct Professor (1987-89)

Jon C. Muzio, B.Sc., Ph.D. (Nott.), Professor

Maarten van Emden, M.Sc. (Technische Hogeschool), Ph.D. (Amsterdam), Professor

Byron L. Ehle, A.B. (Whitman), M.S. (Stanford), Ph.D. (Waterloo), Associate Professor

R. Nigel Horspool, B.A. (Cantab.), M.Sc., Ph.D. (Tor.), Associate Professor

Michael R. Levy, B.Sc., M.Sc., (Witwatersrand), Ph.D. (Waterloo), Associate Professor

D. Dale Olesky, B.Sc., M.Sc. (Alta.), Ph.D. (Tor.), Associate Professor

Frank D.K. Roberts, M.A. (Cantab.), M.Sc., Ph.D. (Liverpool), Associate Professor

Frank Ruskey, B.A., M.A., Ph.D. (Calif., San Diego), Associate Professor

William W. Wadge, B.A. (Brit. Col.), Ph.D. (Calif.-Berkeley), Associate Professor

John A. Ellis, B.Sc., M.Sc. (London), M.S. (Illinois Inst. of Tech.), Ph.D. (Northwestern), Assistant Professor

Daniel M. Hoffman, B.A. (S.U.N.Y.), M.S., Ph.D. (N. Carolina, Chapel Hill), Assistant Professor

Hans A. Muller, M.S., Ph.D. (Rice), Assistant Professor

Micaela Serra, B.Sc. (Man.), M.Sc., Ph.D. (U. of Vic.), Assistant Professor

Gholamali C. Shoja, B.S.E.E. (Kansas St.), M.S.E.E. (Northwestern), D. Phil. (Sussex), Assistant Professor

Wei Zhao, M.S., Ph.D. (Mass.), Assistant Professor

Marilee V. Garrett, B.A. (Brown Univ.), M.Sc. (U. of Vic.), Cooperative Education Coordinator (Computer Science and Mathematics)

Alan E. Idler, B.Sc. (Brit. Col.), Senior Scientific Assistant

J. Donald Large, C.D., Administrative Officer

### GRADUATE PROGRAMS

For information on studies leading to the M.A. and M.Sc. degrees see page 219, and for graduate courses see page 61.

### LIMITATION OF ENROLLMENT

Students are advised that, because of limited facilities and staff it may be necessary to limit enrollment in certain Computer Science courses. Enrollment in Computer Science 100, 110, 112, 115 and 200 will be on a first come, first served basis. Enrollment limits in all other courses will be imposed on the basis of facilities available and academic standing. Students are warned that achieving the minimum academic standing outlined in the course descriptions does not guarantee entry into the courses.

### GENERAL, MAJOR AND HONOURS PROGRAMS

The Department of Computer Science offers Major and Honours programs leading to the B.Sc. degree, and a General Program leading to either a B.Sc. or B.A. degree.

A student in a Major Program in another department may complete the General program requirements in Computer Science to graduate with a Major in the other department and a Minor in Computer Science. Students who wish to be admitted to the Honours program should apply in writing to the Chairman of the Department on completion of their second year. Normally a student will be admitted to the Honours program only if the student meets the following conditions: completion of 112, 115, 230 and 275; completion of at least 10½ units of the Mathematics and Statistics courses required for the degree; attainment of an overall grade point average in second year of at least 6.50; and attainment of a grade of B+ or higher in each 200 level Computer Science course completed. Students may be admitted to the Honours Program upon completion of their third year providing

- (i) they have completed all of the 100 level and 200 level courses required for the Honours degree with a grade point average of at least 6.00 in these courses, and
- (ii) they have completed at least 9 units of 300 level courses in Computer Science (including 320, 322 and 360) and have obtained a grade point average of at least 6.50 over all 300 level Computer Science courses taken.

Honours students who do not obtain a grade point average of at least 6.00 in the six required 300 level Computer Science courses must withdraw from the Program.

A student graduating in the Honours Program will be recommended for a First Class Honours degree if the student has achieved a First Class graduating average and an average of at least 6.50 in courses numbered 300 or higher taken in the Department. A student who completes the Honours degree requirements without attaining first class standing but with a departmental and graduating average of at least 5.00 will be recommended for a Second Class Honours degree.

### Computer Science Programs

Year	General Degree		B.Sc. Honours	
I	C SC 112/115 <sup>1</sup>		C SC 112/115 <sup>1</sup>	(3)
	MATH 100/101 or 102/151		MATH 100/101	(3)
			Electives	(9)
II	C SC 225/230/275		C SC 225/230/250	
	MATH 222		/275	(6)
	STAT 250 or 254		MATH 200/201/222	(6)
III & IV	A total of nine additional units of Computer Science courses numbered 300 or higher.			
Year	B.Sc. Major		B.Sc. Honours	
I	C SC 112/115 <sup>1</sup>	(3)	C SC 112/115 <sup>1</sup>	(3)
	MATH 100/101	(3)	MATH 100/101	(3)
	Electives	(9)	Electives	(9)
II	C SC 225/230/250		C SC 225/230/250	
	/275	(6)	/275	(6)
	MATH 201/222/233A	(4½)	MATH 200/201/222	
	Electives	(4½)	/233A/233C	(7½)
			Elective	(1½)
III	C SC 320/360/365	(4½)	C SC 320/322/330/349A	
	C SC 340 or 349A	(1½)	360/365	(9)
	STAT 250 <sup>2</sup> /251	(3)	STAT 250 <sup>2</sup> /251	(3)
	Other Courses <sup>3</sup>	(6)	Other Courses <sup>4</sup>	(3)
IV	C SC 450/470/471	(4½)	C SC 420/450/470	
	Other Courses <sup>3</sup>	(10½)	/471	(6)
			Other Courses <sup>4</sup>	(9)

<sup>1</sup> Students without a grade of B or higher in Computer Science 12 are also required to take 110.

<sup>2</sup> STAT 250 may be taken as early as the second term of the first year.

<sup>3</sup> These 16½ units of other courses must include 4½ units of Computer Science at the 300 level or above.

<sup>4</sup> These 12 units of other courses must include 1½ units of Computer Science at the 300 level or above, 4½ units of Computer Science at the 400 level, and 4½ units from the Department of Mathematics at the 300 level and above.

### COMBINED PROGRAMS IN COMPUTER SCIENCE AND MATHEMATICS

For a B.Sc. degree in Combined Computer Science and Mathematics, students may take a Major or Honours program. These programs are not joint degrees in Computer Science and Mathematics, but a single degree program composed of a selected combination of courses from each of the departments. Students opting for either of these combined programs must contact the Computer Science and Mathematics Departments and each student will be assigned an adviser from each of these departments. Students considering proceeding to graduate work in either Computer Science or Mathematics must consult with their advisers prior to making their final choice of courses.

A student graduating in the combined Honours program will be recommended for a First Class Honours degree if the student achieves a first class graduating average. A student will be recommended for a Second Class Honours degree if the student achieves a graduating average of at least 5.00.

**Combined Programs in Computer Science and Mathematics**

Year	B.Sc. Major		B.Sc Honours	
I	C SC 112/115 <sup>1</sup>	(3)	C SC 112/115 <sup>1</sup>	(3)
	MATH 100/101	(3)	MATH 100/101	(3)
	Electives	(9)	Electives	(9)
II	C SC 225/230/275	(4½)	C SC 225/230/275	(4½)
	MATH 200/201/222		MATH 200/201/222	
	/233A/233C	(7½)	/233A/233C	(7½)
	STAT 250 <sup>2</sup> /251	(3)	STAT 250 <sup>2</sup> /251	(3)
III	C SC 320/349A/349B	(4½)	C SC 320/349A/349B	(4½)
	MATH 330A/330B		MATH 334/336/338	
	/333A	(4½)	/333A/333C	(7½)
	One of MATH 333C	(4½)	Other Courses <sup>4</sup>	(3)
	/422/423	(1½)		
IV	Other Courses <sup>3</sup>	(4½)		
		(15)	Two of C SC 420	
			/449A/449B	(3)
		Other Courses <sup>4</sup>	(12)	

<sup>1</sup> Students without a grade of B or higher in Computer Science 12 are also required to take 110.

<sup>2</sup> STAT 250 may be taken in the second term of the first year.

<sup>3</sup> These 19½ units of other courses must include at least 12 units from the Departments of Computer Science and Mathematics at the 300 level or above, with at least 6 of these units at the 400 level. In selecting these courses, students are urged to take at least 3 of these units in each of the two departments.

<sup>4</sup> These 15 units of other courses must include at least 4½ units at the 300 level or above and 6 units at the 400 level from the Departments of Computer Science and Mathematics (to include at least 3 units from the Department of Mathematics at the 400 level).

**NOTES:**

- (1) All students taking a Major or Honours degree in Computer Science are strongly advised to take some University courses outside the Computer Science and Mathematics Departments.
- (2) Any students who demonstrate to the Department that they have mastered the material of a course may be granted advanced placement.
- (3) Students from outside British Columbia, students transferring from community colleges and students who have obtained credit for Grade XIII Mathematics must consult the Department before enrolling in any Computer Science course.
- (4) In each line below students may obtain credit for only one Computer Science course.

110 or 170  
115 or 171  
230 or 272  
240 or 340  
250 or 372  
320 or 472  
225, 325 or 374  
330, 370 or 273  
335 or 471  
360 or 371  
372 or 373  
455 or 460

**COMPUTER SCIENCE COOPERATIVE EDUCATION PROGRAM**

The Cooperative Education Program in the Faculty of Arts and Science is described on page 31.

Full time students admitted to the Cooperative Education Program participate in a combined Computer Science and Mathematics Cooperative Education Program during their first two years. In their third year they may opt to complete a degree program in either Computer Science or Mathematics, and will enter the Coop program in that department. Students who opt for the Major or Honours in Combined Computer Science and Mathematics, or for a Double Major or Double Honours in Computer Science and Mathematics will remain in the Combined Computer Science/Mathematics Coop.

The minimum academic requirements for entering the Computer Science and Mathematics Program are a grade point average of 4.50, a minimum grade point average of 5.50 in courses completed in the Departments of Computer Science and Mathematics, and a grade of at

least B- in each course completed in the Departments of Computer Science and Mathematics.

Students are normally admitted to the Program in January after their first term on campus, and application for admission should be made before the end of the first term.

In order to complete the Computer Science Cooperative Program, or the Combined Computer Science and Mathematics Cooperative Program, students must successfully complete the thirteen lower level courses specified in the following table:

Year 1:	C SC 112/115 <sup>1</sup>	(3)
	MATH 100/101	(3)
	STAT 250 <sup>2</sup>	(1½)
Subsequent Years <sup>3</sup> :	C SC 275/230	(3)
	MATH 200/201/222/233A/233C	(7½)
	STAT 251	(1½)

<sup>1</sup> Students without a grade of B or higher in Computer Science 12 are also required to take 110.

<sup>2</sup> STAT 250 may be done in second year.

<sup>3</sup> These courses are normally done in second year except for MATH 233A/233C and STAT 251 which may be done in third year.

In addition, in order to graduate in the Computer Science or Combined Computer Science and Mathematics Cooperative Program, students must successfully complete a minimum of four Work Terms (the granting of Work Term credit by challenge is not permitted) and satisfy the course requirements of any of the Major or Honours degree programs offered by the Department of Computer Science.

Students registered in the Coop Program must be enrolled in at least 6 units of course work during each Campus Term. The performance of students will be reviewed after each Campus Term and each Work Term. Students whose performance is deemed to be unsatisfactory by the Computer Science and Mathematics Coop Committee may be required to withdraw from the Program.

Each Work Term is recorded on the student's academic record and transcript (as COM, N or F) and details of Work Terms are recorded on the Record of Work Terms which is attached to the student's academic record and transcript.

Further information concerning the Cooperative Education Program in Computer Science may be obtained from the Department.

**NOTES:**

- (1) Each student who is admitted to the Coop Program during first year of university must complete all five scheduled Work Terms.
- (2) Students who transfer from other institutions and all students admitted to the Coop Program in their second year of university must complete at least four Work Terms and must complete all scheduled Work Terms in their program.

**UNDERGRADUATE COURSES**

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**C SC 100 (1½) ELEMENTARY COMPUTING**

This course will provide an introduction to computing for the non-specialist. Topics covered include applications of computers in the home, office, and industrial community, implications of computers in society, and elements of programming. (Prerequisite: Algebra 11) (NOTE: This course is designed for a general university audience; students intending to Major in Computer Science should enroll in 110 or 112 rather than 100.) (Not open to students with credit in any of Computer Science 12, 110, 112, or equivalent. Normally not open to students with credit in Computer Studies 11) FS(2-2)

**C SC 110 (1½) COMPUTER PROGRAMMING: I**

This course will introduce problem solving methods and algorithm development and teach a widely used high level programming language. The student will learn how to design, develop, and document well structured programs using software engineering principles. Topics will also include the basics of computer systems (hardware and software), problem specification, and various algorithms. (Prerequisite: Algebra 12) (NOTE: Not normally open to students with a grade of B or higher in Computer Science 12 unless registered in a B.Eng. program) FS(2-2)

**C SC 112 (1½) INTRODUCTION TO COMPUTER SCIENCE**

This course provides an introduction to both theoretical topics and practical aspects of computer science. Topics to be covered will include: the-

ory of computation; fourth generation languages; software engineering principles; basic computer organization and system software. (*Prerequisites:* Algebra 12 and a grade of B or higher in Computer Science 12 or a grade of C or higher in 110) FS (2-2)

### C SC 115 (1½) COMPUTER PROGRAMMING: II

This course is concerned with advanced programming concepts and their application. Topics will include recursion, data structures, numerical analysis and simulation. Applications will be drawn from computer science, business, mathematics, and science. Some knowledge of calculus (e.g., MATH 100 or 102) is desirable. (*Prerequisite:* 110 or 112, or written permission of the Department) FS (2-1)

### C SC 160 (1½) INTRODUCTION TO DATA STRUCTURES

This course will continue the disciplined development of program design, style and expression begun in Computer Science 110. Topics will include representations and applications of data structures; stacks, lists and trees; floating point and complex arithmetic and scientific applications. (Credit will not be given for both 115 and 160.) (*Prerequisites:* 110 and MATH 100) S(2-1)

### C SC 200 (1½) COMPUTERS IN STATISTICAL APPLICATIONS

This course will provide the nonspecialist computer user with the tools needed for scientific data analysis, statistical correlations, graphical displays and simulation. FORTRAN will be the language of instruction, and the use of packages such as SPSS and IMSL will be introduced. The student will learn the use of plotting routines such as SASGRAPH and PLOT-10. (*Prerequisites:* One of ANTH 316, BIOL 250, ECON 240, GEOG 321, STAT 250, PSYC 300, SOCI 371) (NOTE: Not open to students with credit in 110 or a grade of B or higher in Computer Science 12) F(2-2)

### C SC 225 (formerly 325 and 374) (1½) ALGORITHMS AND DATA STRUCTURES

This course continues the study of data structures and nonnumerical algorithms begun in first year. It also introduces techniques for algorithm design and tools for analyzing time and space complexity. Topics include abstract data types and their implementations; sorting, searching, tree and graph algorithms, and proof of algorithm correctness. (*Prerequisite:* A grade of B or higher in 115 or 160, or written permission of the Department. *Pre- or corequisite:* MATH 222 or CENG 345) FS (3-0)

### C SC 230 (formerly 272) (1½) COMPUTER SYSTEMS AND ASSEMBLY LANGUAGE

This course will introduce computer architecture, the basic structure of computer systems, and integrate these concepts through teaching an assembler language and the operations of assemblers, linkers and loaders. Topics covered include register structure, instruction types, symbolic addressing, literals, macros, conditional assembly, subroutines, coroutines, one and two pass relocatable assemblers and loaders. (*Prerequisite:* A grade of B or higher in 112 and an additional 1½ units of 100 level Computer Science; or a grade of B or higher in 160, or written permission of the Department) FSK(3-1)

### C SC 250 (1½) DIGITAL LOGIC AND COMPUTER ORGANIZATION

This course will introduce the organization and structure of major hardware components of computers, the fundamentals of logic design, and the mechanics of information transfer and control within a digital computer system. Topics will include combinatorial and sequential circuits, flip flops, data and address buses, memory control, number representation, instruction fetch and execution, microprogram control, interrupts. (*Prerequisite:* A grade of B or higher in 112 and an additional 1½ units of 100 level Computer Science; or a grade of B or higher in 160, or written permission of the Department. *Pre- or corequisite:* 230) FS(3-2)

### C SC 275 (1½) FILE STRUCTURES FOR DATA PROCESSING

This course will introduce concepts and techniques of structuring data on bulk storage devices, especially as applied to business data processing. The course will present the foundation for application of data structures and file processing techniques. Topics will include record and file definition, external sort/merge, sequential file processing, random access organizations such as inverted lists, indexed sequential methods and B-trees as well as data management concepts. (*Prerequisite:* A grade of B or higher in 115 or 160, or written permission of the Department) FSK(3-1)

### C SC 320 (1½) FOUNDATIONS OF COMPUTER SCIENCE

A survey of formal models and results that form the theoretical foundations of computer science; typical topics include finite automata, Turing machines, simple undecidable problems, context free languages and ele-

mentary computational complexity. (*Prerequisites:* A grade of B or higher in 115 or 160, and MATH 222, or written permission of the Department) FK(3-0)

### C SC 322 (1½) LOGIC AND PROGRAMMING

This course concentrates on the practical applications of logic in computer science and its relevance in such areas as software engineering, artificial intelligence and circuit design theory. Topics discussed will include the following: propositional expressions and circuits, reading and writing first order logic, predicate logic as a relational query language, knowledge representation, PROLOG, and other related topics. (*Prerequisite:* A grade of B or higher in 115 or 160, and MATH 222 or PHIL 203 or 304A; or written permission of the Department) F(3-0)

### C SC 330 (1½) PROGRAMMING LANGUAGES

A theoretical investigation of imperative and applicative programming languages; fundamental aspects of programming languages are covered. Topics include the description of data types, variables and imperatives (such as assignment); iteration and recursion; parameter passing mechanisms; type checking; and relevant implementation issues. Complete familiarity with a block structured imperative programming language, such as Pascal, is essential. (*Prerequisites:* A grade of B- or higher in 225, 230, and 275, or written permission of the Department) S(3-0)

### C SC 340 (1½) (formerly 240) NUMERICAL METHODS

The study of computational methods for solving problems in linear algebra, nonlinear equations, approximation, and ordinary differential equations. The student will write programs in a suitable high level language to solve problems in some of the areas listed above but the course will also teach the student how to use mathematical subroutine packages currently available in computer libraries. (*Prerequisite:* A grade of B or higher in 115 or 160; MATH 233A or 110 and 201; or written permission of the Department) (NOTE: Not open to students with credit in 349A or equivalent) FS(3-1)

### C SC 349A (1½) NUMERICAL ANALYSIS: I

An introduction to selected topics in Numerical Analysis. Typical areas covered: error analysis, roots of equations, systems of linear equations, linear programming, interpolation, numerical integration, and ordinary differential equations. (*Prerequisites:* 115 or 160, and MATH 200, 201 and 233A; or written permission of the Department) FS(3-1)

### C SC 349B (1½) NUMERICAL ANALYSIS: II

An introduction to selected topics in Numerical Analysis. Typical areas covered: ordinary differential equations, numerical differentiation, approximation of functions, iterative methods for linear equations, eigenvalues and eigenvectors, systems of nonlinear equations, boundary-value problems and partial differential equations. (*Prerequisites:* 349A; or MATH 200 and a grade of B or higher in C SC 340; or a grade of B+ or higher in each of 115 or 160, MATH 200, 201, and 233A) S(3-1)

### C SC 350 (1½) COMPUTER ARCHITECTURE

This course will introduce the basic building blocks of a general purpose computer with emphasis on techniques for speed and performance enhancement. Topics will include: central processor organization, arithmetic algorithms, lookahead and parallelism, memory hierarchy, control unit and microprogramming, input output devices, case studies of some recent micro, mini, and mainframe computers. (*Prerequisites:* A grade of B- or higher in 225, 230, and 250, or written permission of the Department) S(3-0)

### C SC 360 (1½) INTRODUCTION TO OPERATING SYSTEMS

This course will introduce the major concepts of operating systems and study the interrelationships between the operating system and the architecture of computer systems. In particular, it will develop an understanding of the organization and architecture of computer systems at the programming level. Topics included are dynamic activation procedures, monitors and kernels, memory and process management, file structures. (*Prerequisites:* A grade of B- or higher in 225 and 230, or written permission of the Department) FK(3-1)

### C SC 365 (1½) SOFTWARE ENGINEERING

Techniques for the development and maintenance of software systems are described. The life cycle approach to software and the characteristics of life cycle products are included. The course covers material in requirements definition, specification, design, program testing and verification and validation. Contemporary and future software development environments are studied. (*Prerequisites:* A grade of B- or higher in 225 and third year standing, or written permission of the Department) FSK(3-2)

**C SC 375 (1½) INTRODUCTION TO SYSTEMS ANALYSIS**

This course introduces the student to many of the techniques used in analyzing a business data processing system. Topics discussed will include the following: project definition, preliminary design, man-machine interface, data gathering and analysis, data base design, system controls, hardware selection, and system testing, implementation and operation. Students will be assigned to a project team involved in a system study as part of the course. (*Prerequisites:* A grade of B- or higher in 225 and third year standing, or written permission of the Department) FS(3-0)

**C SC 420 (1½) ANALYSIS OF ALGORITHMS**

General techniques for designing and analyzing algorithms; an in depth examination of several problems and algorithms with respect to their time and space requirements; advanced data structures; sorting and searching; graph algorithms; backtracking; NP-complete problems; approximation algorithms. (*Prerequisites:* A grade of B- or higher in 225 and 320, or written permission of the Department) S(3-0)

**C SC 448A (1½) OPERATIONS RESEARCH: I**

This course is primarily concerned with linear programming and its applications. Topics discussed will include the following: the simplex method, the revised simplex method, computer implementation of linear programming, duality, dual simplex and primal dual algorithms, parametric analysis and postoptimality analysis. Applications will include the transportation problem, the assignment problem, blending problems, inventory problems, activity analysis, game theory and network analysis. (*Prerequisite:* 349A; or fourth year standing and a grade of B or higher in 340) F(3-0)

**C SC 448B (1½) OPERATIONS RESEARCH: II**

This course provides an introduction to model design using queuing theory and simulation techniques. Topics covered include a brief introduction to queuing theory, basic ideas in simulation, random number generators, sampling, critical event and time slice methods, organization of a simulation study, and basic concepts of GPSS programming. (*Prerequisite:* 115 or 160, STAT 251 and any 300 level mathematics or computer science course) S(3-0)

**C SC 449A (1½) TOPICS IN NUMERICAL ANALYSIS: I**

A thorough discussion of a topic selected from one of the following areas: numerical linear algebra; approximation theory; or the numerical solution of differential equations. (*Prerequisite:* 349B, or written permission of the Department) F(3-0)

**C SC 449B (1½) TOPICS IN NUMERICAL ANALYSIS: II**

A thorough discussion of a topic selected from one of the following areas: numerical linear algebra; approximation theory; the numerical solution of differential equations. (*Prerequisite:* 349B, or written permission of the Department) S(3-0)

**C SC 450 (1½) COMPUTER COMMUNICATIONS AND NETWORKS**

This course will introduce concepts in computer communications and networks. Topics will include layered network architecture, packet switching networks, local area networks, protocol design and verification, network security, and applications in distributed computing. (*Prerequisites:* A grade of B- or higher in 250 and 360, or written permission of the Department) FS(3-3)

**C SC 460 (formerly 455) (1½) DESIGN AND ANALYSIS OF REAL-TIME SYSTEMS**

This course will present the principles of interrupt-driven systems, combining a detailed knowledge of computer architecture with a good understanding of operating systems. The student will have the opportunity to explore the techniques involved by constructing software components of real-time operating systems, using either a minicomputer or a micro-computer. Small projects in real-time control of devices will also be included. (*Prerequisites:* A grade of B- or higher in 250 and 360, or written permission of the Department) S(3-3)

**C SC 470 (1½) DATA BASE SYSTEMS**

This is an introductory course on data base systems. Topics to be covered include: the nature of information systems; the justifications for implementing data bases; basic concepts of data entities, attributes and relationships; the need for flexibility and data independence; simple data modelling; hierarchical, network and relational models; query languages and data dictionaries. (*Prerequisite:* A grade of B- or higher in 225, 275 and in any 3 units of 300 level courses; or written permission of the Department) FS(3-0)

**C SC 471 (formerly 335) (1½) COMPILER CONSTRUCTION**

This course includes the following aspects of compilation: lexical analysis, syntax analysis, semantic routines, code optimization, block structured languages and interpreters. Students will implement a compiler-interpreter for a simple language. (*Prerequisites:* A grade of B- or higher in 225 and 320, or written permission of the Department) FS(3-2)

**C SC 480 (1½) THEORETICAL AND MATHEMATICAL TOPICS IN COMPUTER SCIENCE**

Offered as C SC 480A, 480B, 480C, 480D.

The topics in the course depend primarily on the interests of the instructor. The course may include, for example, one or more of the following topics: automata theory, analysis of algorithms, numerical analysis, and complexity theory. Entry to this course will be restricted to third and fourth year students who meet the prerequisite specified for the topic to be offered. This course may be taken more than once in different topics with the permission of the Chairman of the Department. FS(3-0)

**C SC 481 (1½) TOPICS IN COMPUTER SCIENCE: SOFTWARE, HARDWARE, AND APPLICATIONS**

Offered as C SC 481A, 481B, 481C, 481D.

The topics in the course depend primarily on the interests of the instructor. The course may include, for example, one or more of the following topics: software engineering, data bases, computer graphics, and computer aided instruction. Entry to this course will be restricted to third and fourth year students who meet the prerequisite specified for the topic to be offered. This course may be taken more than once in different topics with permission of the Chairman of the Department. FS(3-0)

**C SC 490 (1½ or 3) DIRECTED STUDIES**

Students must consult the Department before registering. This course may be taken more than once in different fields with permission of the Chairman of the Department.

**GRADUATE COURSES**

Students may register for graduate courses only with the approval of the instructor and after consultation with their supervisor. Not all of the following courses will be offered every year. Students who have taken content equivalent courses at the University of Victoria or elsewhere will not be permitted to take these courses again for credit.

**C SC 500 (no credit) APPLICATIONS OF COMPUTERS IN RESEARCH**

This course provides the introduction to computing that is necessary for some theses projects. It is not open to students registered in a Computer Science degree program.

**C SC 505 (2) COMPUTER GRAPHICS**

This course provides students with a solid background in interactive, generative graphics techniques and hands on experience programming a modern high resolution, raster display workstation. The course covers the hardware and software structures of modern workstations, raster algorithms and data structures (Bresenham's line and circle algorithms, polygon clipping, region filling, colour), transformations (two and three dimensional translation, scaling, and rotation as matrix operations), viewing and representation of three dimensional shapes, approximation of curves and shapes, hidden line and hidden surface elimination algorithms.

**C SC 520 (2) ANALYSIS OF ALGORITHMS**

General techniques for designing and analysing algorithms; an in depth examination of several problems and algorithms with respect to their time and space requirements; advanced data structures; sorting and searching; graph algorithms; geometric algorithms; backtracking; NP complete problems; approximation algorithms.

**C SC 522 (2) GRAPH ALGORITHMS**

The course includes a detailed study, from the algorithmic point of view of some tractable and intractable graph problems. Tractable problems covered include: path problems, spanning trees, network flows, matchings, planarity testing.

The theory of NP completeness is reviewed and applied to graph problems which are apparently intractable, e.g. the clique, independent set, vertex cover, Hamiltonian circuit, Travelling Salesman and colouring problems. Approximation and probabilistic solutions to the intractable problems are discussed.

Models of randomized and parallel computation and the associated complexity classes are outlined and examples of randomized algorithms for some graph problems are examined.

**C SC 524 (2) COMPUTATIONAL COMPLEXITY**

The course covers elements of the theory of computational complexity. Topics covered include: the distinction between tractable and intractable problems; definition of computational models and complexity classes; techniques for comparing the complexity of problems; the classes P (deterministic polynomial time); and NP (nondeterministic polynomial time); P and NP completeness; Auxiliary Pushdown Automata; Alternating Turing Machines; the polynomial time hierarchy; the classes Polynomial Space and Logarithm Space; probabilistic complexity classes; models of parallel computation; can all problems in P be effectively parallelized? randomized parallel computation.

**C SC 526 (2) COMPUTATIONAL GEOMETRY**

This introductory course covers algorithms and data structures which are used to solve geometrical problems. Topics include geometric searching, convex polygons and hulls, Voronoi diagrams, plane sweep algorithms, proximity, and intersections. Application areas which are discussed include computer graphics, VLSI design and graph theory.

**C SC 528 (2) COMBINATORIAL ALGORITHMS**

This course is concerned with the interfaces between combinatorics and Computer Science. Algorithms and data structures that are used to manipulate, generate, and randomly select combinatorial objects are studied. Such objects include sets, permutations, combinations, trees, graphs. Methods for analyzing combinatorial algorithms such as recurrence relations, asymptotics, and amortized complexity are presented.

**C SC 530 (2) ADVANCED COMPILER CONSTRUCTION**

This course presents an in depth study of recent developments in the theory and practice of compiler construction. The major topics include: program flow analysis; code optimization; attribute grammars, automatic code generation methods, and incremental compilers.

**C SC 532 (2) LOGIC PROGRAMMING**

This course provides a theoretical basis for research in logic programming. Emphasis is placed on the unifying role of logic programming. Thus connections are made with the fixpoint semantics of programming languages in general, with relational database theory, with theory of computation, with formal grammars, and with the semantics of functional programming languages. The core material on logic covers: clauses and Herbrand models; Horn clauses; general interpretations; semantics of equality; lambda calculus and its logical reconstruction.

**C SC 534 (2) DATAFLOW COMPUTATION**

This course is concerned with both software and hardware aspects of the dataflow approach to computation. We will examine various machine architectures and the corresponding dataflow languages. Special attention will be given to software engineering issues, and the students will have access to an interpreter for the dataflow language LUCID.

**C SC 536 (2) ADVANCED PROGRAMMING LANGUAGES**

This course examines the principles underlying modern programming languages. Topics presented include: functional programming, type systems, polymorphism, higher order objects, modularity, and models of concurrency.

**C SC 540 (2) NUMERICAL ANALYSIS: I**

Topics include: round off errors, conditioning and numerical stability; coding matrix operations; matrix representation, floating point error analysis and stability; norms and condition numbers; eigenvalues and eigenvectors; basic properties, canonical forms, deflation, the power method, inverse power method and the QR algorithm.

**C SC 541 (2) NUMERICAL ANALYSIS: II**

A student may take this course more than once for credit, so long as the course content differs. The course consists of a thorough discussion of a topic selected from the following areas:

- 541A Approximation theory
- 541B The numerical solution of differential equations
- 541C Numerical quadrature
- 541D Optimization

**C SC 545 (2) OPERATIONS RESEARCH: I**

This course is primarily concerned with linear programming and its applications. Topics discussed include the following: the simplex method, the revised simplex method, computer implementation of linear programming, duality, dual simplex and primal dual algorithms, parametric analysis, and optimality analysis.

Applications are selected from: the transportation problem, the assign-

ment problem, blending problems, inventory problems, activity analysis, game theory and network analysis.

**C SC 546 (2) OPERATIONS RESEARCH: II**

This course provides an introduction to model design using queuing theory and simulation techniques. Topics covered include a brief introduction to queuing theory, basic ideas in simulation, random number generators, sampling, critical event and time slice methods, organization of a simulation study, and basic concepts of simulation programming.

**C SC 550 (2) COMPUTER COMMUNICATIONS AND NETWORKS**

This course introduces concepts in computer communications and networks. Topics include: layered network architecture, packet switching networks, local area networks, protocol design and verification, network security, and applications in distributed computing.

**C SC 552 (2) ADVANCED SWITCHING THEORY**

This course covers a selection of topics in switching theory and their application to the design of digital systems. The emphasis is on techniques suited to computer aided design (CAD). Topics to be covered are selected from: formal aspects of switching theory; spectral logic; combinational and sequential circuit synthesis; algorithmic state machines; and the software aspects of hardware design such as hardware description languages.

**C SC 554 (2) FAULT TOLERANT COMPUTING**

In this course, issues of fault tolerant computing are discussed, ranging from the choice of fault tolerant architectures, to expert systems for the design and test of integrated circuits. Topics include: design and test of defect free integrated circuits, fault modelling, built in self test, data compression, error correcting codes, simulation software/hardware, fault tolerant system design, CAD tools for design for testability.

**C SC 556 (2) VLSI DESIGN ALGORITHMS**

This course covers algorithmic aspects of the design and application of VLSI circuits and systems. Topics to be covered are selected from: the fundamental components of CAD tools for VLSI design progressing from simple geometric layout packages through to silicon compilation; languages for the description of VLSI systems; simulation at the circuit, switch, functional and behavioural levels; VLSI architectural issues including systolic arrays. Fundamental design principles of VLSI systems are covered.

**C SC 558 (2) MULTIPLE VALUED LOGIC AND SWITCHING THEORY**

This course gives an introduction to the area of multiple valued logic as an alternative to conventional binary logic. Topics will include: representation of multiple valued functions; simplification and minimization techniques; synthesis and design of multiple valued circuits; multiple valued arithmetic units; multiple valued simulation.

**C SC 560 (2) DESIGN AND ANALYSIS OF REAL TIME SYSTEMS**

This course presents the principles of interrupt driven systems, combining a detailed knowledge of computer architecture with a good understanding of operating systems. The student has the opportunity to explore the techniques involved by constructing software components of real time operating systems, using either a minicomputer or a microcomputer. Small projects in real time control of devices are also included. (May not be taken by students with credit for 460)

**C SC 562 (2) DISTRIBUTED COMPUTING**

This course deals with recent developments and advanced research topics in the area of distributed computing. Topics include: distributed operating systems, interprocess communications, remote procedure calls, network transparency, file server, execution location, and failure transparency, fault tolerant distributed systems, process replication, load balancing, task migration and performance issues, interconnection strategies, network configurations, problem decomposition, distributed updating of multiple copies, global object addressing, centralized and decentralized control mechanisms, reliability and the reconnection problem, and finally case studies of some of the more significant distributed systems.

**C SC 566 (2) IMPLEMENTATION OF SOFTWARE ENGINEERING PRINCIPLES**

The goal of Software Engineering is the construction of complex, maintainable software at reasonable cost. This course provides the opportunity to gain software engineering experience in a controlled environment. Methods for software specification and design are emphasized. Additional topics may include design for change, configuration management, and software tools.

**C SC 568 (2) MODULARIZATION, DATA ABSTRACTION, AND REUSABILITY**

In this course the realizations of the concepts of modularization, data abstraction, and reusability are explored in imperative (Modula-2 and Ada) and object oriented (Smalltalk-80 and ML) programming languages. In particular, the focus is on the topics of type systems and polymorphism. A study of the influence of those concepts of the design of software development environments (Rigi and Cedar) is given.

**C SC 580 (2) TOPICS IN APPLICATIONS OF COMPUTER SCIENCE**

(May be taken for credit more than once, so long as the course content differs)

**C SC 581 (2) TOPICS IN ARTIFICIAL INTELLIGENCE**

(May be taken for credit more than once, so long as the course content differs)

**C SC 582 (2) TOPICS IN THEORETICAL COMPUTER SCIENCE**

(May be taken for credit more than once, so long as the course content differs)

**C SC 583 (2) TOPICS IN PROGRAMMING LANGUAGES**

(May be taken for credit more than once, so long as the course content differs)

**C SC 584 (2) TOPICS IN NUMERICAL ANALYSIS AND OPERATIONS RESEARCH**

(May be taken for credit more than once, so long as the course content differs)

**C SC 585 (2) TOPICS IN HARDWARE AND COMPUTER ARCHITECTURE**

(May be taken for credit more than once, so long as the course content differs)

**C SC 586 (2) TOPICS IN COMPUTER SYSTEMS AND SOFTWARE**

(May be taken for credit more than once, so long as the course content differs)

**C SC 587 (2) TOPICS IN INFORMATION SYSTEMS**

(May be taken for credit more than once, so long as the course content differs)

**C SC 589 (2) GENERAL TOPICS IN COMPUTER SCIENCE**

(May be taken for credit more than once, so long as the course content differs)

**C SC 591 (2) DIRECTED STUDIES**

Individual studies under the direct supervision of a faculty member. The content and evaluation must be approved by the department. (May be taken more than once, so long as course content differs)

**C SC 595 (1) SEMINAR**

(Grading: INP, COM, N or F)

**C SC 598 (1-3) MASTER'S PROJECT**

(Grading: INP, COM, N or F)

**C SC 599 (4-6) MASTER'S THESIS**

(Grading: INP, COM, N or F)

## DEPARTMENT OF ECONOMICS

John A. Schofield, B.A. (Durham), M.B.A. (Indiana), M.A., Ph.D. (S. Fraser), Associate Professor and Chairman of the Department

Clarence L. Barber, B.A. (Sask.), M.A. (Clark), Ph.D. (Minn.), Adjunct Professor (1986-88)

Robert L. Bish, A.B. (S. Calif.), A.M., Ph.D. (Indiana), Adjunct Professor (1984-88)

Thomas N. Brewis, B.Comm., M.Comm., Ph.D. (Durh.), Adjunct Professor (1986-88)

James Cutt, M.A. (Edin.), M.A., Ph.D. (Tor.), Adjunct Professor (1984-88)

A.R. Dobell, B.A., M.A. (Brit. Col.), Ph.D. (M.I.T.), Adjunct Professor (1984-88)

J. Colin H. Jones, B.A. (Wales), M.A. (Montana St.), Ph.D. (Queen's), Professor

Leonard Laudadio, B.A. (Puget Sound), M.A., Ph.D. (Wash.), Professor

James J. McRae, B.A. (U. of Vic.), M.A., Ph.D. (W. Ont.), Adjunct Professor (1984-88)

Thomas K. Shoyama, B.A., B.Com. (Brit. Col.), Adjunct Professor (1987-88)

Gerald R. Walter, B.A., M.A., Ph.D. (Calif.), Professor

Kenneth L. Avio, B.Sc. (Ore.), M.S., Ph.D. (Purdue), Associate Professor

Robert V. Cherneff, B.A. (U. of Vic.), M.A., Ph.D. (Wash.), Associate Professor

Izzud-Din Pal, B.A., M.A. (Panjab), M.Sc.Econ. (London), Ph.D. (McGill), Associate Professor

Malcolm Rutherford, B.A. (Heriot-Watt), M.A. (S. Fraser), Ph.D. (Durham), Associate Professor

Joseph Schaafsma, B.A., M.A. (McMaster), Ph.D. (Tor.), Associate Professor

William D. Walsh, B.Com. (Brit. Col.), M.A., Ph.D. (Yale), Associate Professor

Donald G. Ferguson, B.A., M.A., Ph.D. (Tor.), Assistant Professor

Serge Nadeau, B.A., M.B.A. (Laval), Ph.D. (Carnegie - Mellon), Assistant Professor

Kenneth G. Stewart, B.A. (Dal.), M.Sc. (Lond.), M.A., M.A., Ph.D. (Mich.), Assistant Professor

Roderick Hay, B.A. (Wat.), M.A. (Tor.), Visiting Lecturer (1987-88)

### LIMITATION OF ENROLLMENT

Students are advised that because of limited staff and facilities, it may be necessary to limit enrollment in certain courses. Course enrollment limits will be listed during registration. Students will be admitted on a first come, first served basis.

### GENERAL, MAJOR AND HONOURS B.A. PROGRAMS

#### Requirements:

##### General

- (a) 201 and 202 (formerly 200)
- (b) 9 units of Economics courses numbered 300 and above

##### Major

- (a) A grade point average of at least 3.00 in 201 and 202 and not less than a C in either course
- (b) Math 100 and 101 or 151 and 102, or 151 and 100, or permission of the Department (See Note 2)
- (c) At least a C+ in 240
- (d) A total of 15 units of Economics courses numbered 300 and above, including:
  - One of 300 or 302
  - One of 301 or 303
  - 321
  - 340 (See Note 2)

##### Honours

- (a) A grade point average of at least 5.50 in 201 and 202, and not less than a B in either course.
- (b) Mathematics requirement as for Major
- (c) At least a B in 240
- (d) 300 and 301 with a grade point average of at least 5.50 and not less than a B- in any one of these courses
- (e) At least a B- in 340 (See Note 3)
- (f) 321 and 470
- (g) In addition to the 12 upper level units specified in (d), (e), and (f), 12 additional units of Economics courses numbered above 300
- (h) Three upper level units in another subject or subjects chosen with the approval of the Department. The Department may permit lower

### GRADUATE PROGRAM

For further information on studies leading to the M.A. Degree, see page 220; for graduate courses, see page 67.

level Computer Science or Mathematics courses as substitutes for all or part of these three units.

- (i) Three units of electives, any level
- (j) Normally a minimum of 15 units during the winter session in each of the last two years of the program.

Suggested electives for all students in the B.A. in Economics program; COMM 120, 253 and 254; CSC 200; 3 units of Mathematics in addition to 100 and 101 or 151 and 102; POLI 100.

## MAJOR AND HONOURS B.Sc. PROGRAMS

### Major

- (a) A grade point average of at least 3.00 in 201 and 202 and not less than a C in either course.
- (b) MATH 151 and 102 (or 100); and 152 or 242; and 240. Or, MATH 100 and 101; and 233A; and 200 and 201; and 152 or 242. Or, permission of the Department. (See Note 2).
- (c) At least a C+ in 240
- (d) CSC 110 or 112
- (e) A total of 15 units of Economics courses numbered 300 and above, including:
  - 300 or 302 and 301 or 303
  - 350
  - 440 and 445
  - 340 or STAT 250 and 251 (See Note 3)

### Honours

- (a) A grade point average of at least 5.50 in 201 and 202, and not less than a B in either course.
- (b) Mathematics requirements as for Major
- (c) CSC 110 or 112; and 115
- (d) At least a B in 240
- (e) 300 and 301 with a grade point average of at least 5.50 and not less than a B- in any one of these courses
- (f) At least a B- in 340 (or STAT 250 and 251) (See Note 3)
- (g) 350, 440, 445 and 470
- (h) In addition to the 18 upper level units specified in (e), (f), and (g), 7½ additional units of Economics courses numbered 300 and above
- (i) Three upper level units in another subject or subjects chosen with the approval of the Department. The Department may permit lower level Computer Science or Mathematics courses as substitutes for all or part of these three units.
- (j) One and a half units of electives, any level
- (k) Normally a minimum of 15 units during the winter session in each of the last two years of the program.

Suggested electives for students in the B.Sc. in Economics program are: MATH 233A, CSC 230 and 275, COMM 253 and 254, PHIL 222A and 222B.

## NOTES

1. No more than six (6) units of Economics courses numbered 300 and above which are taken prior to the attainment of the G.P.A. in 201/202 required for a Major or Honours program may be counted for the respective program.
2. Mathematics:
  - (a) Mathematics requirements for Major and Honours programs should normally be completed by the end of the Second Year.
  - (b) In order to satisfy the prerequisites of required courses in the B.Sc. program, MATH 240 must be completed in the Second Year.
3. Statistics:
  - (a) ECON 240 should normally be completed by the end of the Second Year and must be completed by the end of the Third Year.
  - (b) ECON 340 should normally be completed by the end of the Third Year.
  - (c) Students with credit in STAT 250 are not permitted to take ECON 340 for credit, but must take STAT 251 to complete the statistics requirement.
  - (d) Students with credit in STAT 250/251 or 253 are required to take a 1½ unit upper level course in Economics instead of ECON 340.
  - (e) STAT 250/251 or 253 are not accepted as substitutes for ECON 240.
4. In the Honours B.Sc. program, a maximum of 6 units of upper level courses in Mathematics, Computer Science or Statistics may be substituted for upper level Economics courses with permission of the Department.
5. Students wishing to proceed to graduate studies in Economics are advised to include 350, 440, 445 and MATH 240 in their undergraduate program.

## ADDITIONAL INFORMATION

1. Admission to an Honours program, which should be sought at the end of the Second Year, requires permission of the Department. Interested students should consult the Honours Adviser or the Department as early as possible in the first two years. Honours students will be required to maintain at least a second class average in courses taken within the Department in the Third and Fourth Years. ECON 470 is required for all Fourth Year Honours students. Third Year Honours students may be required to attend the seminars.
2. To obtain a First Class Honours degree the requirements will be: a graduating average of at least 6.50; a grade point average of at least 6.50 computed on the basis of all upper level courses taken within the Department, except 470; and at least a second class grade in 470.
3. To obtain a Second Class Honours degree, the requirements will be a graduating average of at least 3.50; a grade point average of at least 3.50 computed on the basis of all upper level courses taken within the Department, except 470; and at least a C in 470.
4. A student who fails to meet Departmental requirements for a first class standing in an Honours program but has a first class graduating average will be offered the choice between Second Class Honours and a First Class Major degree. A student who fails to meet Departmental requirements for second class standing in an Honours program but has a second class graduating average will be granted a Second Class Major degree.

## UNDERGRADUATE COURSES

### ECONOMICS

#### INTRODUCTORY AND INDIVIDUAL COURSES

Students who wish to take only one course in Economics should consider 100. Upper level courses may also be taken subject to the following regulations governing the prerequisite courses.

201 and 202 are prerequisites for all Third Year courses, but in special cases, 201 and 202 may be taken concurrently with Economics courses numbered 305 and above with the permission of the Department. 300 or 302 and 301 or 303 are prerequisites for all courses numbered 400 and above unless permission is granted by the Department or unless otherwise stated below. 300, 301, 302, 303 are only open to students with at least a 3.00 G.P.A. in 201 and 202 with not less than a C in either course.

Students should consult the Department concerning courses offered in a particular year.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### ECON 100 (1½, formerly 3) THE CANADIAN ECONOMY — PROBLEMS AND POLICIES

A discussion of some of the important issues in economic decision making in both private and public sectors of the Canadian economy with an introduction to the basic concepts of economic analysis. (NOTE: Students wishing to proceed into the Commerce program at the University of British Columbia are advised to take 201 and 202 in their first year.) (Prerequisite: None; credit cannot be obtained by those who have previous credit in Economics; 100 and 201/202 cannot be taken concurrently.) FS(3-0)

#### ECON 201 (1½) PRINCIPLES OF MICROECONOMICS

The principles of microeconomic analysis with special reference to the theory of demand, the theory of the firm and the theory of distribution. (Not open to students with credit in 280 or ENGR 280) (Prerequisite: Algebra 12 or permission of the Department; 100 and 201 cannot be taken concurrently.) FS(3-1)

#### ECON 202 (1½) PRINCIPLES OF MACROECONOMICS

The principles of macroeconomic analysis with special reference to fluctuations in income and prices, monetary and fiscal policies for economic stabilization. (Prerequisite: Algebra 12 or permission of the Department; 100 and 202 cannot be taken concurrently.) FS(3-1)

#### ECON 240 (1½) DESCRIPTIVE STATISTICS AND PROBABILITY

Populations, samples, measures of central location and dispersion. Deterministic time series analysis: trends, moving averages, seasonal adjustment, index numbers. Probability laws. Discrete and continuous random variables. Joint, marginal, and conditional distributions. Mathematical expectation and variance. Functions of random variables; laws of expectation. Covariance and correlation. Binomial, Poisson, and normal distributions. (Prerequisite: 100, or corequisite: 201 or 202. Prerequisites: Math 151 and 102, or 151 and 100, or 100 and 101, or permission of the Department) FS(3-0)

NOTE: The following four courses (300, 301, 302, 303) are open only to students with at least a 3.00 G.P.A. in 201 and 202, with not less than a C in either course.

### ECON 300 (3) MICROECONOMICS

Theories of demand and production; pricing of factors of production; general equilibrium theory; welfare economics; some applications of price theory. (*Prerequisite*: MATH 102 or 100) (Not open to students with credit in 302 or 304A. Also see Note above) Y(3-0)

### ECON 301 (3) MACROECONOMIC THEORY

Theories of income and employment with special reference to the classical and the Keynesian models; the dynamics of aggregate supply and demand; theory of inflation; economic growth. (*Pre- or corequisite*: MATH 102 or 100) (Not open to students with credit in 303 or 304B. Also see Note above) R.V. Cherneff Y(3-0)

### ECON 302 (1½) INTERMEDIATE MICROECONOMIC THEORY

An examination of the theories of consumer demand; production and cost; the firm and market under conditions of perfect competition, monopoly, monopolistic competition and oligopoly; factor markets and distribution; and welfare economics. (*Pre- or corequisite*: MATH 102 or 100) (Not open to students with credit in 300 or 304A. Also see Note above) M. Rutherford FS(3-0)

### ECON 303 (1½) INTERMEDIATE MACROECONOMIC THEORY

Theories of aggregate economic behaviour; the determination of national income and employment, consumption, investment, inflation, growth and fluctuations, economic policy. (*Pre- or corequisite*: MATH 102 or 100) (Not open to students with credit in 301 or 304B. Also see Note above) W.D. Walsh FS(3-0)

### ECON 305 (1½) INTRODUCTION TO MONEY AND BANKING

The principles of money, credit creation and banking; organization, operation and control of the banking system; and the relationship between the quantity of money and the level of economic activity. R.V. Cherneff F(3-0)

### ECON 307 (formerly 402) (1½) HISTORY OF ECONOMIC THOUGHT

A survey of the ideas of major thinkers in Economics from the Mercantilist and Physiocratic Schools, through Adam Smith and Classical Economics, to the development of Neoclassicism and the Macroeconomics of J.M. Keynes. (Not open to students with credit in 407) M. Rutherford F(3-0)

### ECON 308 (1½) AN INTRODUCTION TO THE ECONOMIC ANALYSIS OF LAW

Application of economic principles and methodology to the law of property, torts and contracts, as well as to criminal, family and corporate law. (Not open to students with credit in 408) K.L. Avio F(3-0)

### ECON 310 (3) INDUSTRIAL ORGANIZATION AND PUBLIC POLICY

Problems of competition and monopoly; relevant public policy, with special reference to Canada. Y(3-0)

### ECON 312 (formerly 412) (1½) URBAN LAND ECONOMICS

Application of economic principles to the form and structure of urban areas; land use, external effects and public policy in the urban context. Topics include: intraurban location, economic function and specialization within the city, the economics of urban transport, housing and public services. F(3-0)

### ECON 315 (3) LABOUR ECONOMICS AND INSTITUTIONS

An examination of labour as a factor of production; the development of national labour markets and their contemporary structure; functions and performance. Amongst other areas, consideration will be given to the following: industrial relations systems, labour history, the nature of organized labour, the collective bargaining process, contemporary labour problems and public policy. W.D. Walsh Y(3-0)

### ECON 320 (1½) ECONOMIC DEVELOPMENT

An examination of the economics of development with reference to

Third World countries. Main emphasis will be on problems and policies, both domestic and international. Topics will include the relevance of the historical growth experience; poverty and income distribution; agriculture, technology, industrialization, and education; population and migration; international trade and foreign investment. I.-D. Pal F(3-0)

### ECON 321 (1½, formerly 3) THE ECONOMIC HISTORY OF CANADA

The story of long-run economic growth and welfare in the Canadian economy, with the aid of economic analysis, quantitative data and other historical materials. Emphasis on the development of the Canadian economy from a resource based economy to a developed industrial economy within an international setting. Consideration of the sources of Canadian economic growth and the reasons for Canadian income differentials with other nations. FS(3-0)

### ECON 323A (formerly half of 323) (1½) COMPARATIVE ECONOMIC SYSTEMS

A study of modern economic systems with reference to Capitalist, Socialist, and third world economies; emphasis will be given to the organization, operation, and performance of economic systems. D.G. Ferguson S(3-0)

### ECON 323B (formerly half of 323) (1½) THE SOCIALIST ECONOMIES

A study of the history, institutions, principles of operation, performance and prospects of the Soviet and other east European economies. D.G. Ferguson S(3-0)

### ECON 324 (PACI 324) (1½) ECONOMIC DEVELOPMENT IN SOUTHEAST ASIA

Economic performance and economic institutions of countries in Southeast Asia with special reference to Indonesia, Malaysia, the Philippines, and Thailand; focus will be mainly on current issues and on international economic relations of the region with the rest of Asia and with North America. (*Prerequisite*: Either 100 or 201, or permission of the Department; PACI 200) I.-D. Pal F(3-0)

### ECON 325 (1½) PUBLIC FINANCE

A discussion of taxation and expenditure policies with an emphasis on Canada. Microeconomic effects of these policies will be examined in detail. J. Schaafsma F(3-0)

### ECON 326 (1½) FISCAL POLICY AND RELATED ISSUES

A discussion of the principles of fiscal policy in the context of macroeconomic theory. This course will also examine the recent historical record of Canadian fiscal policy and focus on policy options for the present and future. J. Schaafsma S(3-0)

### ECON 330 (ES 312) (1½) ENVIRONMENTAL ECONOMICS

Economic principles as applied to environmental questions associated with B.C. resource exploitation. The problem of spillovers to economic processes. Externalities and their management through economic institutions. Economic aspects of man's use and conservation of the environment, particularly regarding energy, forestry, fisheries, mining, air and water. Problem of sustainable production, conservation, and possible limits to economic growth arising from scarcity of environmental resources. (*Prerequisite*: 201 or permission of the Department) (Not open to those students having credit for 430, 430A or 430B) L. Laudadio S(3-0)

### ECON 340 (1½) STATISTICAL INFERENCE

Estimation, confidence intervals and hypotheses tests. Simple regression and correlation. Multiple regression; t and F tests. (Not open to students who have credit for STAT 250, 251 or 253) (*Prerequisite*: 240 and MATH 100 and 101, or 151 and 102, or 151 and 100, or permission of the Department) S. Nadeau FS(3-0)

### ECON 350 (1½) AN INTRODUCTION TO MATHEMATICAL ECONOMICS

An introduction to the application of calculus and linear algebra to selected problems in microeconomic and macroeconomic theory. (*Prerequisite*: MATH 240 or permission of the Department. *Pre- or corequisite*: 300 or 302 and 301 or 303) K.L. Avio S(3-0)

**ECON 405A (formerly half of 405) (1½) INTERNATIONAL TRADE THEORY AND POLICY**

A study of international trade theory and its applications; topics include: The determinants of patterns of trade and investment; trade, growth and welfare; the political economy of tariffs; the regional impact of tariffs. The approach is both theoretical and empirical.

I.-D. Pal F(3-0)

**ECON 405B (formerly half of 405) (1½) INTERNATIONAL MONETARY THEORY AND POLICY**

A study of international monetary economics, including such topics as foreign exchange markets, Keynesian and monetarist mechanisms of adjustment, forward exchange markets, alternate exchange rate systems, capital mobility and open economy macro policies.

R.V. Cherneff S(3-0)

**ECON 406 (1½) MONETARY THEORY AND POLICY**

The nature of a monetary economy; money supply models; money demand models and empirical evidence; neo-Keynesian and Monetarist theories contrasted; the instruments, indicators, and objectives of monetary policy; recent Canadian monetary policy. Some familiarity with partial differentiation is required. (Prerequisite: 303 or 301 or 304B, or permission of the Department; 305 recommended)

K.L. Avio S(3-0)

**ECON 407 (1½) TOPICS IN THE HISTORY OF ECONOMIC THOUGHT**

Seminar in selected issues in the History of Economic Thought. Topics will include a detailed examination of Adam Smith's *Wealth of Nations* and Alfred Marshall's *Principles of Economics*. Other topics may vary from year to year.

M. Rutherford S(3-0)

**ECON 408 (1½) ECONOMIC ANALYSIS OF LAW**

An intensive investigation of economic aspects of law and legal institutions. Topics include Coase's Law, liability and damage rules, optimal deterrence, and agency theory. (Not open to students with credit in 308) (Prerequisite: 340 or equivalent)

K.L. Avio F(3-0)

**ECON 410A (formerly half of 410) (1½) PROBLEMS OF CANADIAN MICROECONOMIC POLICY**

Selected topics involving the application of microeconomic analysis to Canadian problems and policies; topics vary but generally include education, health care, regulation and competition policy. (Prerequisite: 300 or 302 or 304A)

J.C.H. Jones S(3-0)

**ECON 410B (formerly half of 410) (1½) PROBLEMS OF CANADIAN MACROECONOMIC POLICY**

Selected topics involving the application of macroeconomic analysis to Canadian problems and policies in the areas of unemployment, inflation and economic growth. (Prerequisite: 301 or 303 or 304B)

L. Laudadio F(3-0)

**ECON 414 (1½) REGIONAL ECONOMICS**

Consideration of the problem of regional economic disparities. Theories of migration, location and regional economic growth. Techniques for analyzing aspects of the regional problem, including cost benefit analysis, regional accounting, shift share analysis, multiplier analysis. Policy issues relating to the problem.

J. Schofield F(3-0)

**ECON 416 (1½) COST BENEFIT ANALYSIS: PRINCIPLES AND APPLICATION**

Principles of cost benefit analysis including consideration of welfare economics, the treatment of intangibles, nonefficiency considerations, time discounting, evaluation criteria, uncertainty and risk; selected applications in such areas as human resource economics, natural resource and recreation economics, economic development and urban planning.

J. Schofield S(3-0)

**ECON 420 (1½) THEORY OF ECONOMIC DEVELOPMENT**

Theories of economic development; domestic policies for development; investment criteria; planning and financing economic development; the role of foreign trade and aid in economic development.

I.-D. Pal S(3-0)

**ECON 421 (1½) EUROPEAN AND INTERNATIONAL ECONOMIC HISTORY**

The rise of capitalism and the Industrial Revolution especially in Western Europe. The British experience and comparative rates of growth in European countries, with some attention to the transference of industrialization techniques to non-European countries.

S(3-0)

**ECON 427 (1½) PUBLIC CHOICE THEORY**

The use of concepts from economic theory to analyze the structure and performance of the public sector. Topics include the nature of public and packageable goods, demand articulation, political organization, bureaucratic supply and public service industry structure. (Prerequisites: 300 or 302 or 304A, or permission of the Department)

R.L. Bish F(3-0)

**ECON 430A (1½) NATURAL RESOURCE ECONOMICS**

An examination of the economic principles governing the use of natural resources, social and private cost and the regulation of natural resource use. The economics of various resource sectors, including fisheries, forests, recreation and mining. (Prerequisite: 300 or 302 or 304A, or permission of the Department)

F(3-0)

**ECON 430B (1½) TOPICS IN NATURAL RESOURCE ECONOMICS**

Seminar on selected issues in natural resource economics; rents and their appropriation, taxation, user's cost, ecology and economics, depletion of energy and other reserves, transportation economics and resource exploitation, and applications of cost benefit analysis are indicative topics. (Prerequisites: 330 or 430A, or permission of the Department)

S(3-0)

**ECON 440 (3) ADVANCED ECONOMIC THEORY: A MATHEMATICAL APPROACH**

Selected topics in advanced economic theory including general equilibrium theory, welfare economics, theories of capital and interest, the theory of economic growth. Extensive use of mathematics. (Prerequisite: 350, or 304A and 304B, or permission of the Department)

D.G. Ferguson Y(3-0)

**ECON 445 (3) ECONOMETRICS**

The application of statistics to economics. Properties of estimators, methods of estimation. Simple and multiple regression. Violations of assumptions: heteroscedasticity, autocorrelation, stochastic regressors. Specification error, dummy variables, linear and nonlinear restrictions, distributed lags. Simultaneous equations: identification and estimation. The emphasis is on the principles of econometric theory, although some assignments will involve economic applications and data analysis. (Prerequisites: 340 or equivalent, and either MATH 240 or MATH 100, 101 and 233A)

K.G. Stewart Y(3-0)

**ECON 470 (3) HONOURS SEMINAR**

(NOTE: For Honours Students only)

**ECON 495 (1½ or 3) DIRECTED STUDIES**

Directed reading and/or research for major and honours students with first class standing in Economics under the supervision of a faculty member willing to supervise such a course. Students may take this course for a total of up to three units. (Prerequisite: Permission of the Department)

**COMMERCE****COMM 100 (1½) INTRODUCTION TO BUSINESS**

Introduction to the operations of business in the Canadian context. Topics include business and the economy, legal forms of business organization, principles of management and functions of business. S(3-0)

**COMM 120 (1½) PRINCIPLES OF ORGANIZATIONAL BEHAVIOUR**

An introductory examination of work organizations and the behaviour of individuals within them. Phenomena to be studied include organizational structure, organizational environments, group processes, individual motivation, perception, communication, power processes, leadership and learning. (Prerequisite: Second year standing) (Not normally open to students with credit in PSYC 334A or SOCI 324)

FS(3-0)

**COMM 253 (1½) FINANCIAL ACCOUNTING**

Introduction to the construction and interpretation of financial state-

ments prepared primarily for use by parties external to the issuing firm or other business entity. Emphasis on accounting policies and their underlying rationale as well as on accounting techniques. (*Prerequisite:* Second year standing, or permission of the Department) FS(3-0)

#### **COMM 254 (1½) MANAGERIAL ACCOUNTING**

Introduction to the development and use of accounting information for management planning and control, and the development of cost information for financial reports. (*Prerequisite:* 253) S(3-0)

### **GRADUATE COURSES**

Students should consult the Department for courses offered in any given year.

#### **ECON 500 (1½) MICROECONOMICS**

Analysis of methods used to derive testable hypotheses concerning the behaviour of consumers, firms, and markets. Discussion of theoretical foundations of concepts widely used in applied economics (e.g., consumer surplus analysis, the behaviour of firms under regulatory constraint, production economics). Readings in selected areas of the applications of microeconomic theory. (*Corequisite:* 504 or equivalent)

#### **ECON 501 (1½) MACROECONOMICS**

Review of the Keynesian and classical models. An examination of the component sectors of these models. Topics may also include uncertainty, the role of lags in determining time paths and policy effects, adjustment processes. Where possible, illustrations and exercises are based on estimated macroeconomic models.

#### **ECON 502 (1½) HISTORY AND METHOD OF ECONOMICS**

Seminar in selected issues in the history and methodology of economics. Topics may range over the work of particular authors or schools, the problems of theory selection, and the philosophy of science as applied to Economics.

#### **ECON 504A (formerly half of 504) (4/5) MATHEMATICAL METHODS FOR ECONOMISTS**

A survey of the mathematical methods most frequently used in Economics. The topics covered include: the calculus of functions of several variables, the properties of homogeneous functions, the implicit function theorem, matrices, systems of equations, constrained and unconstrained optimization, the envelope theorem, the general method of comparative statics. (Grading: INC, COM, N or F)

#### **ECON 504B (formerly half of 504) (4/5) STATISTICAL METHODS FOR ECONOMISTS**

A survey of the statistical techniques most frequently used in economics. Topics covered include probability theory, sampling theory, confidence intervals, hypothesis testing, regression and correlation. (Grading: INC, COM, N or F)

#### **ECON 505A (formerly half of 505) (1½) THE THEORY OF INTERNATIONAL TRADE**

A study of international production and exchange. The topics covered include: the nature and source of the gains from trade; the determinants of international production and comparative advantage; international factor mobility and transnational production; the implications of market imperfections; trade and growth. Particular attention is given to the generality of theoretical propositions and their empirical applications. (*Prerequisite:* 500 or 405A or equivalent)

#### **ECON 505B (formerly half of 505) (1½) THEORY OF TRADE POLICY**

An examination of selected contributions to the theory of tariffs and other trade restrictions, and an analysis of trade policy for the developed and developing countries. (*Prerequisite:* 500 or 405A or equivalent)

#### **ECON 506 (1½) MONETARY THEORY AND POLICY**

The examination of selected contributions to contemporary monetary theory and policy, and their relationship to macroeconomics. Topics may include the introduction of monetary elements into macroeconomic models, with emphasis on wealth effects and budget constraints; the theory of the demand and supply of money; interest rate and monetary policy; an introduction to rational expectations and New Classical macroeconomic theory.

#### **ECON 510 (1½) INDUSTRIAL ORGANIZATION AND PUBLIC POLICY**

Seminar in the structure and performance of industrial markets with special emphasis on the problems of maintaining effective competition in Canada.

#### **ECON 512 (1½) URBAN ECONOMICS**

Theory and policy of the urban economy. Topics include the macroeconomics of urban growth, stagnation and decline; the neoclassical theory of the urban economy; the economics of housing, land use, intraurban location and urban environmental quality.

#### **ECON 513 (1½) REGIONAL ECONOMIC DEVELOPMENT**

Selected analytical approaches to regional economic development. Topics include theories of location and growth, techniques of analysis and assessment of policy alternatives.

#### **ECON 515 (1½) LABOUR ECONOMICS**

Seminar in labour economics and collective bargaining, including wage and employment theory, collective bargaining systems, theory of labour movement, and public policy in collective bargaining.

#### **ECON 516 (1½) COST BENEFIT ANALYSIS**

Theoretical issues in project and program analysis. Selected applications in such areas as human resource economics, natural resource and recreation economics, economic development, subnational planning.

#### **ECON 517 (1½) THE ECONOMICS OF CANADIAN HEALTH CARE**

Analysis of the structure, function and performance of the medical market with emphasis on physician and hospital services.

#### **ECON 518 (1½) ECONOMICS OF CRIME**

Seminar in theoretical and applied methods used in economics models of criminal activity. Topics include the economic model of criminal behaviour, efficiency aspects of the branches of the criminal justice system, and econometric research relevant to the field.

#### **ECON 519 (1½) THE ECONOMICS OF EDUCATION**

A discussion of theoretical and empirical issues in the demand for and supply of education. Topics to be examined will include the consumption and investment aspects of the demand for education, the optimal supply and pricing of education, and the relationship between factor input and output in the educational process.

#### **ECON 520 (1½) ECONOMIC DEVELOPMENT**

Seminar to examine selected issues in the theoretical models of economic development, factors in economic development, strategy of economic planning, and financing of economic development.

#### **ECON 521 (1½) ECONOMIC HISTORY**

Seminar in selected topics in economic history including the approach and contributions of "the new economic history", theories of long-run economic growth, history and analysis of long-run economic growth in selected countries, and new work in the literature.

#### **ECON 525 (1½) PUBLIC FINANCE AND FISCAL POLICY**

Seminar in selected topics in fiscal policy and public finance including the incidence and effects of taxation, government expenditure programs and public debt operations.

#### **ECON 530 (1½) ECONOMICS OF NATURAL RESOURCES**

Seminar in the economics of natural resources including a survey of relevant theoretical literature and selected topics covering problems of resource industries.

#### **ECON 531 (1½) ENVIRONMENTAL ECONOMICS**

Seminar in selected issues in environmental economics. Topics to be covered may include problems of externalities, liability rules, various models of the interaction between economic and environmental processes, measurement of consumers' surplus in the case of environmental goods and the debate concerning the limits to growth.

#### **ECON 540 (1½) MATHEMATICAL ECONOMICS**

Selected topics in the application of mathematics to economic theory. The topics include the theory of general economic equilibrium and the theory of economic growth.

#### **ECON 545 (1½) ECONOMETRICS**

The general linear regression model applied to problems of hetero-

skedasticity, autocorrelation, pooled data and equation systems. Topics include methods of dealing with multicollinearity and prior information as well as distributed lag models. Emphasis is on practical methods and their application to specific cases.

#### **ECON 546 (1½) ADVANCED TOPICS IN ECONOMETRICS**

Further study of selected topics including Bayesian inference, varying parameter models, nonlinear estimation and time series analysis. Emphasis is on econometric theory.

#### **ECON 550 (1½) SOVIET ECONOMICS**

The structure and functioning of Soviet and Eastern European economies. Theory and practice of socialist pricing; planning; economic development; problems of measurement and comparisons with Western economies.

#### **ECON 555 (1½) METHODS OF APPLIED ECONOMICS**

An intensive investigation of certain empirical methods widely used in applied economics. Topics will be chosen from the areas of forecasting, simulation, linear and nonlinear programming, input output analysis, data access, survey techniques and other applied methods. (*Prerequisite:* 500)

#### **ECON 570 (no credit) SEMINAR IN APPLIED ECONOMICS**

Attendance and participation in a program of seminars. The presentation of a paper on a research topic is required. Normally the topic will be related to the student's thesis and will be prepared under the supervision of the student's thesis advisory committee.

(Grading: INP, COM, N or F)

#### **ECON 595 (1½) DIRECTED STUDIES IN ECONOMICS**

Individual titles will be assigned to each lettered section (A-Z)

#### **ECON 599 (4½) THESIS**

(Grading: INP, COM, N or F)

## DEPARTMENT OF ENGLISH

Thomas R. Cleary, B.A. (Queens Coll.), M.A., Ph.D. (Princeton), Associate Professor and Chairman of the Department  
 Lionel Adey, B.A., M.A. (Birm.), Ph.D. (Leicester), Cert. Ed. (London), Professor  
 Shyamal Bagchee, B.A. (Delhi), M.A. (Visvabharati), M.A. (McMaster), Ph.D. (York), Visiting Associate Professor (1987-88)  
 William Benzie, M.A., M.Ed., Ph.D. (Aberdeen), Professor  
 Edward I. Berry, A.B. (Wesleyan), M.A., Ph.D. (Calif., Berkeley), Professor  
 Michael R. Best, B.A., Ph.D. (Adelaide), Professor  
 Charles Doyle, B.A., M.A. (N.Z.), Ph.D. (Auckland), Professor  
 Anthony S.G. Edwards, B.A. (Reading), M.A. (McMaster), Ph.D. (London), Professor  
 Anthony B. England, B.A., M.A. (Manchester), Ph.D. (Yale), Professor  
 Mel D. Faber, B.A. (Chicago), M.A., Ph.D. (Calif., Los Angeles), Professor  
 Bryan N.S. Gooch, B.A., M.A. (Brit. Col.), Ph.D. (London), A.R.C.T. (Tor.), L.T.C.L., F.T.C.L. (London), Professor  
 Patrick J. Grant, B.A. (Queen's, Belfast), D.Phil. (Sussex), Professor  
 Colin J. Partridge, B.A. (Nott.), Cert. Ed. (London), Ph.D. (Nott.), Professor  
 Stephen A.C. Scobie, M.A. (St. Andrews), Ph.D. (Brit. Col.), Professor  
 Herbert E. Smith, A.B., A.M. (Boston), Ph.D. (Rutgers), Professor  
 Henry E. Summerfield, B.A., M.A. (Oxon.), M.Litt. (Durham), Professor  
 Reginald C. Terry, B.A. (Leicester), M.A. (Bristol), Ph.D. (London), Professor  
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 Shyamal Bagchee, B.A. (Delhi), M.A. (Visvabharati), M.A. (McMaster), Ph.D. (York), Visiting Associate Professor (1987-88)  
 John G. Hayman, B.A., M.A. (Oxon.), M.A. (Cornell), Ph.D. (Northwestern), Associate Professor and Director of Graduate Programs  
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 Carol V. Johnson, B.A. (Coll. of St. Catherine), M.A. (Marquette), M.F.A. (Iowa), Ph.D. (Bristol), Associate Professor  
 Patricia J. Koster, B.A. (Brit. Col.), M.A. (Calif., Berkeley), Ph.D. (London), Associate Professor  
 Victor A. Neufeldt, B.A. (Brit. Col.), Ph.D. (Ill.), Associate Professor; Director of Language Program and First Year English  
 Constance M. Rooke, B.A. (Smith Coll.), M.A. (Tulane), Ph.D. (N. Carolina), Associate Professor  
 Robert M. Schuler, B.A. (Bellarmine), M.A., Ph.D. (Colo.), Associate Professor  
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 Nelson C. Smith, B.A. (Princeton), M.A.T. (Oberlin), Ph.D. (Wash.), Associate Professor and Director, Language Program and First Year English  
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 Kathryn Kerby-Fulton, B.A., B.Ed. (York, Can.), M.A. (Oxon.), M.Phil. (York, U.K.), Assistant Professor  
 Margot K. Louis, B.A. (Smith Coll.), B.A. (Oxon.), Ph.D. (Tor.), Assistant Professor  
 Judith I. Mitchell, B.A., M.A., (Sask.), Ph.D. (Alta.), Assistant Professor  
 Patricia N. Rae, B.A. (Queen's), D.Phil. (Oxon.) Adjunct Assistant Professor (1987-90)  
 J. Douglas Beardsley, B.A. (U. of Vic.), M.A. (York), Visiting Lecturer (1987-88)  
 Jean A. Butler, B.A., M.A. (U. of Vic.), Visiting Lecturer (1987-88)  
 Susan Cripps, B.A., M.A. (U. of Vic.), Visiting Lecturer (1987-88)  
 Sarah Harasym, B.A., M.A. (New Br.), M.A. (Queen's), Visiting Lecturer (1987-88)  
 Hedy Miller, B.A., M.A., M.L.S. (Brit. Col.), Administrative Officer

## GRADUATE PROGRAMS

For information on studies leading to the M.A. and Ph.D. degrees, see page 223, for graduate courses, see page 74.

## GENERAL, MAJOR AND HONOURS PROGRAMS

### **Prerequisites**

Students are referred to the University's regulations concerning the English Requirement on page 12, and to the remarks about First Year English on the next page. (Also see Registration, page 11.)

The prerequisite for all English courses numbered 200 and above is 3 units of first year English. This prerequisite may be satisfied by two courses taken from 115, 116, 121, 122; or by three units of appropriate transfer credit in English. However, with permission of the Department, some students may take 200 level courses in their first year. Second year students may take courses numbered 300 and above, but will be required to meet the normal standards of senior courses.

Every student is required to own a good dictionary, e.g., *The Concise Oxford Dictionary*, *The American College Dictionary*, *Webster's Collegiate Dictionary*, *Dictionary of Canadian English*, *The Senior Dictionary*, *The Random House Dictionary of the English Language* (College Edition).

## General

Students wishing to take English as one of the fields of concentration in their General program should take in their First Year: 3 units from 115, 116, 121, or 122; Second Year: 200, 201, 202, or 203; Third and Fourth Years: a total of 9 units in English courses numbered 300 and above. Students desiring advice about their choice of courses are invited to see the secretary of the Department, who will arrange consultation with Departmental advisers.

## Major

Majors are required to take a total of 15 units in English at the senior level, of which 9 units are to be chosen from the Course Structure, and an additional 6 units from courses numbered 300 and above. Normally at least 12 of these 15 units should be completed at the University of Victoria, and no more than 6 units should be from variable content courses (see listing below).

Course Structure for English Major:

- (a) At least one course (3 units) from: 200, 201, 202, 203. Students planning to major in English are strongly recommended to take 200.
- (b) At least 3 units from 351, 352, 366, 369.
- (c) At least 1½ units in addition to (b) requirements, from courses in literature before 1700: 340, 341, 346, 347, 351, 352, 353, 354, 359, 360, 361, 362, 363, 364, 366, 369, 410.
- (d) At least 1½ units from courses in literature covering the period 1700-1800: 372, 373, 374, 375, 376.
- (e) At least 1½ units from literature 1800-1900: 382, 383, 384, 385, 386, 387, 427, 428.
- (f) At least 1½ units from 20th century Canadian, American, British or Commonwealth literature: 388, 429, 431, 432, 433, 434, 436, 437, 439, 450, 451, 452, 453, 457.

NOTE: Students who have credit for courses in English not now included in the Calendar should see the Director of the Major Program for advice in following the course structure.

The Department strongly recommends that students majoring in English have a reading knowledge of a second language and/or that they take courses in literature in translation of another culture. Students planning any postgraduate work are reminded that graduate schools generally require competence in at least one language other than English.

## Honours

The Honours Program allows students of proven ability to study English language and literature more intensively than is possible in the Major or General Programs. While enjoying a comprehensive course structure, Honours students also participate in special seminars and receive the guidance of individual tutors in connection with English 490/491 and 499. Students who take a special interest in English language or literature, or who are contemplating postgraduate study in English, are strongly advised to enroll in Honours rather than in the General or Major Program. An English Honours degree is valuable for any career demanding clear thinking and writing.

Normally Honours students will follow this pattern:

*First Year:* 121, 122 (200 may also be taken in the first year with permission of the Department).

*Second Year:* 200, 310, plus some electives (e.g. Classics, History, Philosophy) and/or some upper level English courses, with reference to the course structure below. Students may take 310 in their third year, but this option tends to limit one's flexibility in choosing elective courses in the third and fourth years. For the same reason, it is also to a student's advantage to begin work on the second language requirement by the beginning of the second year.

*Third and Fourth Years:* Prerequisites for admission to Third Year Honours include a first or high second class grade in 200 or 310 and the approval of the Department. Honours students must present at least 24 units of English courses numbered 300 and above, to be distributed according to the following course structure:

- (a) 440, 445 (Third Year Honours courses, 1½ units each); note that 340 may be substituted for 440;
- (b) 446, 499 (Fourth Year Honours courses, 1½ units each); in some circumstances, 447 may be substituted for 446 with permission of the Director of Honours;
- (c) 351 (*The Canterbury Tales*);
- (d) Either 366 (Shakespeare Survey, 3 units) or 360 (Special Studies in Shakespeare, 1½ units);
- (e) At least 1½ additional units from the period before 1660: 340, 341, 346, 347, 352, 353, 354, 359, 360, 361, 362, 363, 364, 369, 410;
- (f) At least 1½ units from the period 1660-1800: 372, 373, 374, 375, 376;
- (g) At least 1½ units of British literature from the period from 1800-1900: 382, 383, 384, 385, 386, 387;

\* (h) At least 1½ units from 20th century British or Commonwealth literature: 388, 433, 434, 436, 437, 439;

\* (i) At least 1½ units from American literature: 425, 426, 427, 428, 429, 431, 432, 437 (This requirement will be waived if the student has completed 203);

(j) At least 1½ units from Canadian literature: 448, 450, 451, 452, 453, 457 (This requirement will be waived if the student has completed 202);

(k) Electives: at least 4½ units (or 6 units, if English 360 has been taken instead of 366) from English Department courses numbered 300 and above.

\* Students who have completed 201 may apply to the Director of Honours for a waiver of either requirement (h) or (i), depending on the content of their 201 section

At the end of the Fourth Year, there will be an interview at which students will defend their projects undertaken for 499.

## COMBINED MAJOR IN ENGLISH AND FRENCH (CANADIAN LITERATURE)

The Combined Major in English and French (Canadian Literature) is not a double major in English and French, but a single B.A. degree program composed of selected courses from each department. The term "Canadian Literature" will be formally recognized on the transcript. Students should consult either department about choice of courses.

### First year

Two of ENGL 115, 116, 121, 122	(3)
FREN 180	(3)
HIST 230 (may be taken in a later year)	(3)
Electives	(6)
	(15)

### Second year

One of ENGL 200, 201, 202, 203	(3)
FREN 285/290	(6)
Electives	(6)
	(15)

### Third and Fourth years

Courses selected from English Major Course Structure, b) through e), page 66	(7½)
ENGL 458 (FREN 487)	(1½)
FREN 302	(3)
Courses selected from French courses numbered 320 to 470	(3)
Canadian Literature courses, of which at least 4½ upper level units must be taken in each Department	(10½)
Electives	(4½)

### Counselling

The programs of Honours students are subject to the approval of the Director of Honours Programs, and the choice of electives is subject to modification in light of the student's entire program. Special counselling for students entering the Honours Program, as well as for those already enrolled in it, is available from the Director, who should be consulted as soon as a student develops an interest in the Program.

### Second Language Requirement

English Honours students must demonstrate knowledge of a language other than English. Normally the language will be one that has an important literary or historical bearing on the study of English, such as Greek, Latin, French, Italian, German, Russian or Spanish; a student may petition, however, to substitute another language such as Chinese or Japanese. Students may fulfill the requirement in two ways:

- (a) by completing successfully six units of university credit in the study of the language (this method is recommended for all students, particularly those intending to pursue postgraduate study);
- (b) by passing a translation examination set and marked by the appropriate language department (normally these examinations are available only to students who have completed one year of university work in the language).

### Standing at Graduation

An Honours degree is either First or Second Class. A First Class degree requires a first class graduating average (6.5 and above) and at least a B+ in 499 (the Graduating Essay). If an Honours student has a first class graduating average but has scored lower than B+ in 499, the student will be given the option of receiving Second Class Honours or a First Class Major. A Second Class Honours degree requires a second class graduating average (3.50 to 6.49) with at least B- in English 499.

**Directed Reading**

490 and 491 (Directed Reading) are tutorials of 1½ units each which are set up by students and individual instructors and approved by the Director of Major Programs or the Director of Honours Programs and by the Chairman of the Department. Only students with Honours standing or a G.P.A. of 6.00 or better may be allowed to pursue studies in Directed Reading.

**Variable Content Courses**

The English Department offers a number of variable content courses, with topics advertised annually (353, 360, 362, 372, 385, 388, 391, 392, 393, 394, 399, 400, 405, 415, 425, 426, 447, 448, 449). Where content differs, such courses may be taken more than once for credit, to a maximum of 3 units.

**Course Challenge**

The English Department does not permit students to gain credit by course challenge; students may, however, apply to the appropriate Director (First Year, Majors, or Honours) for waiver of prerequisites in special cases.

**Suggested Electives**

The Department encourages its students to take elective courses supportive to their General, Major or Honours programs. In making their choice of electives, students may wish to give special consideration to relevant courses in Anthropology (e.g. 200); Classics (e.g. 100, 200); Creative Writing; History (e.g. 220, 230); History in Art (e.g. 120, 221); Linguistics; Music (e.g. 110); Philosophy (e.g. 100, 102, 238); Political Science; Psychology; Sociology; Theatre (e.g. 100); and courses in the literature of other languages.

**UNDERGRADUATE COURSES****FIRST YEAR**

All students registering for an English course must satisfy the University English Requirement — see English Requirement for Undergraduates, page 12. For students with satisfactory standing the Department offers two sequences of one-term courses — 115/116 and 121/122. The development of skills in critical reading, composition, and library use are among the primary objectives of *all* first year courses. 115 stresses expository writing and nonfiction prose, with considerable emphasis on the preparation of a research paper; 116 continues the composition work and provides an introduction to the critical reading of imaginative literature. 121 focuses on the analysis of prose fiction, developing composition skills through the writing of critical essays on novels and short stories; 122 deals with poetry and drama and offers additional practice in the writing of critical essays. Any departure from the normal sequence of 115/116 and 121/122, except as described below, must be authorized by the Director of First Year English.

Those students who, on the basis of their score on the University of Victoria English Placement Test, are required to take English 099 must register in 099 for the First Term and in English 115 for the Second Term and may not take any other English course until the satisfactory completion of 099. Those who fail 099 in the First Term must repeat the course in the Second Term; any who fail a second time must take and pass the course during the following Summer Studies or they will normally be denied permission to return to the University until they have demonstrated the required level of competence in English. For further information, see English Requirement for Undergraduates, page 12.

Normally, only one English course may be taken in First Term. In special circumstances, however, three units of First Year English may be taken in Second Term, with the permission of the Director of First Year English. Three units of credit in First Year English are prerequisite to all other courses in the Department. No supplemental examinations are permitted in any First Year course.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**ENGL 099 (0) REMEDIAL ENGLISH COMPOSITION** (3 fee units)  
A remedial course in writing required of those whose score on the Placement Test indicates serious deficiencies in composition skills; a workshop approach provides instruction and drill in the fundamentals of reading comprehension and composition, including vocabulary, grammar, mechanics, sentence structure, and paragraphing. Space in the course may be available for other students with writing difficulties who may be advised to take it. For further information, see note above.  
(Grading: COM, N or F)  
(3-0)

**ENGL 115 (1½) COLLEGE COMPOSITION**

A study of expository composition and English prose; readings consist mainly of essays for the analysis of ideas and style. Written assignments are designed to improve the student's ability to write clearly and correctly, to organize material, and to carry out basic library research. Students will write a minimum of six essays, including a substantial research paper. (*Prerequisite:* Fulfillment of the University English Requirement or successful completion of 099)  
(3-0)

**ENGL 116 (1½) INTRODUCTION TO LITERATURE**

A study of prose fiction, poetry, and drama, with practice in the writing of critical essays; students will be assigned a minimum of four essays. Not open to students with credit in 121 or 122 (*Prerequisite:* Fulfillment of the University English Requirement)  
(3-0)

**ENGL 121 (1½) LITERATURE: PROSE FICTION**

An introduction to prose fiction; class discussions and essays focus on the analysis and interpretation of short stories and novels. Considerable time will be spent on the writing of critical essays, with special attention to organization, argument, evidence, style, and, as necessary, to grammar; students will be assigned a minimum of four essays.

Not open to students with credit in 116 (*Prerequisite:* Fulfillment of the University English Requirement)  
(3-0)

**ENGL 122 (1½) LITERATURE: POETRY AND DRAMA**

An introduction to the interpretation of poetry and drama, with continued attention to the writing of critical essays; students will be assigned a minimum of four essays.

Not open to students with credit in 116 (*Prerequisite:* Fulfillment of the University English Requirement)  
(3-0)

**SECOND YEAR**

At least 3 units of credit in First Year English are prerequisite to future work in the Department.

**ENGL 200 (3) BRITISH LITERATURE FROM THE AGE OF CHAUCER TO THE ROMANTIC PERIOD**

Special emphasis will be placed on works by Chaucer, Spenser, Marlowe, Shakespeare, Donne, Milton, Dryden, Swift, Pope, Fielding, Johnson, Blake, Wordsworth, Coleridge, Keats and Austen. (Open to all students who do not have credit in 204 or 205, but strongly recommended to those who wish to major or honour in English) Texts: *The Norton Anthology of English Literature* (2 vols.); other texts to be announced.  
Y(3-0)

**ENGL 201 (3) STUDIES IN MODERN LITERATURE**

The emphasis will be upon themes important in 20th century literature. Authors to be studied may include Shakespeare, Joyce, Forster, Fitzgerald, Hardy, Hemingway, Camus, Cary, Beckett, Lawrence, Conrad, Tolkien, Bellow, T.S. Eliot.  
Y(3-0)

**ENGL 202 (formerly 238) (3) AN INTRODUCTION TO CANADIAN LITERATURE**

Major authors and themes in Canadian literature; the course will deal primarily with 20th century writers.  
B.N.S. Gooch, N.C. Smith  
Y(3-0)

**ENGL 203 (3) AN INTRODUCTION TO AMERICAN LITERATURE**

A survey designed for both those who will continue in American studies and those who will not. Emphasis is on the continuity of the American literary tradition. Readings from the set text will be chosen by the instructor and supplemented by additional readings in the major writers such as Whitman, Hawthorne, Twain, Henry James, Faulkner.  
C. Doyle  
Y(3-0)

**ENGL 215 (1½) THE WRITING OF EXPOSITORY PROSE**

This course pays attention to the styles and methods of nonfiction prose writing. It focuses on the development and critical analysis of the student's own writing through numerous and extensive written assignments and through the study of the techniques employed by other writers. The course is open to all students, but is of special relevance to those going into the teaching profession. (Classes will be limited to 20 students. Not open to students with credit for 300)  
(3-0)

**ENGL 225 (1½) TECHNICAL COMMUNICATIONS: WRITTEN AND VERBAL**

Intended to assist students who plan careers in business, government, public service and research institutions, the course is designed to improve written and oral communication skills in a work environment. Its practical basis, which requires the preparation of business letters, inter-

nal memoranda and reports, is supplemented by a theoretical outline of basic communication within an organizational structure. The course offers experience of both individual and group problem-solving. (*Prerequisite*: 3 units of first year English or permission of Department) (Classes limited to 16) (3-0)

### ENGL 250 (1½) CONTEXTS OF LITERATURE

This course is an introduction to the relationships between literature and other aspects of our culture. Students may take 250 for a maximum of 3 units of credit. (*Prerequisite*: 3 units of first year English) (NOTE: This course is primarily designed as an elective for students not intending to major in English.)

This Year: The Literature of War in the 20th Century

This century is pre-eminently the century of continuous war. Some explanations seem necessary. How have war (whether it be world, civil or terrorist) and the threat of war (particular of nuclear war) been represented in fiction and poetry?

T.L. Williams F(3-0)

### THIRD AND FOURTH YEARS

1½ unit courses are numbered 350 and above for convenience, and are at the same level as upper level courses numbered 400 and above.

### ENGL 310 (formerly 345) (3) PRACTICAL CRITICISM

A seminar designed to sharpen reactions to a writer's style, and to examine how the design of his thoughts creates his meaning. Discussions centre upon the way a particular poem, novel or play works in its details and in its overall patterning. Prospective Honours students are strongly advised to take this course in their Second Year. Students will be allowed to select this course only if they have the approval of the Director of Honours.

M.R. Best, A.W. Jenkins, B.E. Wallis Y(3-0)

### ENGL 340 (formerly 442 and part of 441) (1½) AN INTRODUCTION TO OLD ENGLISH

An introduction to the language, culture, and literature of Anglo-Saxon England, including the study of prose texts and poetry. (May be offered 1989-90) NO(3-0)

### ENGL 341 (formerly 443 and part of 441) (1½) OLD ENGLISH LITERATURE

A study of *Beowulf* and other Old English texts. (*Prerequisite*: 340) (May be offered 1989-90) NO(3-0)

### ENGL 346 (formerly 355) (1½) AN INTRODUCTION TO OLD ICELANDIC

An introduction to the Old Icelandic language and to the poems and stories — the Eddas and the Sagas — that it preserves.

J.J. Tucker F(3-0)

### ENGL 347 (formerly 356) (1½) OLD ICELANDIC LITERATURE

A study of *Hrafnkel Saga*, *Bandmanna Saga*, *Hervarar Saga* and *Heidreks*, and selected Eddic poems. (*Prerequisite*: 346 or permission of the instructor)

J.J. Tucker S(3-0)

### ENGL 351 (1½) THE CANTERBURY TALES

An introductory study of Chaucer's poetry focusing specifically on *The Canterbury Tales*.

A.S.G. Edwards, K. Kerby-Fulton F(3-0)

### ENGL 352 (1½) CHAUCER AND HIS CONTEMPORARIES

A study of the important works of Chaucer outside the *Canterbury Tales*, primarily *Troilus and Criseyde*, and a selection from his dream visions and lyrics. Other Medieval authors may be studied to illuminate the medieval literary traditions in which Chaucer was writing, or which he later influenced. (May not be offered 1989-90)

M.K. Louis S(3-0)

### ENGL 353 (1½) STUDIES IN MEDIEVAL ENGLISH LITERATURE

A study of the major literary works and genres of the medieval period (excluding Chaucer). The course will centre on specific genres (romance, drama, lyric, etc.), at the discretion of the instructor, with annual advertisement. (May not be offered 1989-90)

This Year: Icelandic Sagas in Translation

A survey of the sagas composed in Iceland during the 12th and 13th centuries; the origins of saga writing as well as the historical and mythological background will be considered together with a number of sagas in translation.

J.J. Tucker F(3-0)

### ENGL 354 (1½) OLD AND MIDDLE ENGLISH LITERATURE IN TRANSLATION

A survey of English literary texts of the Middle Ages; selections will range from *Beowulf* to medieval lyrics, morality plays, and romances, as well as major works by the *Gawain* poet, Langland, and the Scots poets. The survey does not include Chaucer. (May be offered 1989-90) NO(3-0)

### ENGL 359 (1½) RENAISSANCE LITERATURE

Major nondramatic literature of the 16th Century. (Not open for credit to students in 419) Texts: Sidney's *Defence of Poesy*; More's *Utopia* and Bacon's *New Atlantis*; lyrics by Sidney and other Elizabethans; and a substantial selection from *The Faerie Queene* (editions to be announced) (May not be offered 1989-90)

E.I. Berry S(3-0)

### ENGL 360 (1½) SPECIAL STUDIES IN SHAKESPEARE

Intensive study of a few plays, with emphasis on related critical issues. Students intending to take this course must have a good knowledge of Shakespeare's work. (May be offered 1989-90) NO(3-0)

### ENGL 361 (1½) THE METAPHYSICAL POETS

Major emphasis will be on Donne, Herbert, Marvell, Vaughn and Traherne. Special attention will be given to the secular love lyric, as well as to the influence of Christian theology and related philosophical traditions. (Intend to offer 1989-90) NO(3-0)

### ENGL 362 (1½) SPECIAL STUDIES IN RENAISSANCE LITERATURE

A study of major literary works, genres, or themes of the English Renaissance chosen by the instructor, with annual advertisement. Emphasis will be on nondramatic works.

(May be offered 1989-90) NO(3-0)

### ENGL 363 (1½) MAGIC, SCIENCE AND RELIGION IN RENAISSANCE LITERATURE

A study of late 16th and 17th century literature in light of the interrelationships between contemporary magic, science, and theology. A good deal of attention will be paid to this background, but the ultimate purpose of the course is the fuller understanding of the literary texts themselves. Authors to be studied include Marlowe, Shakespeare, Jonson, Donne, Bacon, and Browne. (May be offered 1989-90) NO(3-0)

### ENGL 364 (1½) ELIZABETHAN AND JACOBAN DRAMA

Main emphasis is on such major Elizabethan and Jacobean dramatists as Marlowe, Webster, Jonson, Middleton and Ford. (Intend to offer 1989-90) NO(3-0)

### ENGL 366 (formerly 413) (3) SHAKESPEARE SURVEY

Lectures on the development of Shakespeare's art in the histories, comedies and tragedies.

M.R. Best, M.D. Faber, R.M. Schuler, T.G. Sherwood Y(3-0)

### ENGL 369 (1½) MILTON: MAJOR POETRY AND SELECTED PROSE

(Not open for credit to students with credit in 419) P.J. Grant S(3-0)

### ENGL 372 (1½) SPECIAL STUDIES IN 18TH CENTURY LITERATURE

A study of a major aspect of literature in the century. The specific focus of the course will be determined by the instructor and advertised annually. (May be offered 1989-90) NO(3-0)

### ENGL 373 (1½) ENGLISH LITERATURE OF THE RESTORATION PERIOD: 1660-1700

Poetry, prose and drama (excluding Milton's) produced between the Restoration of Charles II in 1660 and the close of the 17th century; particular emphasis will be placed upon Dryden and Restoration Comedy. (Not open to students with credit for 371) (May be offered 1989-90) NO(3-0)

### ENGL 374 (1½) SWIFT, POPE, AND THE LITERATURE OF THE AUGUSTAN AGE: 1701-1745

An intensive study of the great age of English satire, with particular emphasis on Swift, Pope and the other satirists of the reigns of Queen Anne and the first two Georges. (Not open to students with credit for 420) T.R. Cleary S(3-0)

### ENGL 375 (1½) JOHNSON, BLAKE AND THE LATER 18TH CENTURY

Literature of the later 18th century, with particular emphasis on Samuel

Johnson and his circle, William Blake, and the poetry of "sensibility". (Not open to students with credit for 370)  
H.E. Summerfield F(3-0)

**ENGL 376 (formerly 423) (3) THE BEGINNING OF THE BRITISH NOVEL IN THE 17TH AND 18TH CENTURIES**

Main emphasis is placed on the 18th century novel — with some attention to the social and intellectual background of the period, when this appears to illuminate the novels.  
P.J. Koster Y(3-0)

**ENGL 382 (formerly half of 430) (1½) THE ROMANTIC PERIOD: I**

Studies in Wordsworth and Coleridge.  
G.K. Blank F(3-0)

**ENGL 383 (formerly half of 430) (1½) THE ROMANTIC PERIOD: II**

Studies in Keats, Shelley, and Byron.  
G.K. Blank S(3-0)

**ENGL 384 (formerly 424) (3) THE BRITISH NOVEL IN THE 19TH CENTURY**

Authors to be studied may include Mary Shelley, Austen, Scott, Brönte, Disraeli, Collins, Dickens, Thackeray, Eliot, Trollope, Meredith, Hardy, Butler, and Stevenson.  
R.C. Terry, B.E. Wallis Y(3-0)

**ENGL 385 (1½) SPECIAL STUDIES IN 19TH CENTURY ENGLISH LITERATURE**

A study of a specific theme, problem or author of the 19th century. The specific topic will be determined by the instructor and advertised annually. (May not be offered 1989-90)

This Year: The Literature of Rebellion from Blake to Hardy  
Blake, Byron, and Shelley established a literary tradition of the radical left which continued to disturb and inspire throughout the Victorian age. After considering seminal texts by these authors, we shall discuss how the Romantic rebels' criticism of society and religion was taken up, developed, and transformed by Victorian freethinkers and iconoclasts, in poetry, fiction, and nonfictional prose. F(3-0)

**ENGL 386 (1½) VICTORIAN POETRY AND THOUGHT: I**

Studies in Tennyson and Arnold, with additional readings from such prose writers as Mill, Carlyle, and Newman. (Intend to offer 1989-90)  
NO(3-0)

**ENGL 387 (1½) VICTORIAN POETRY AND THOUGHT: II**

Studies in Browning, Hopkins and the pre-Raphaelite poets, with additional readings from such prose writers as Carlyle, Ruskin, Pater, and Morris. (May not be offered 1989-90)  
L. Adey S(3-0)

**ENGL 388 (1½) SPECIAL STUDIES IN 20TH CENTURY BRITISH LITERATURE**

A study of a specific theme, problem or author of the period. The specific topic will be determined by the instructor and advertised annually. (May not be offered 1989-90)

This Year: The Bloomsbury Group  
The "Bloomsbury Group" was a loose association of writers, painters, and intellectuals who flourished in the early 20th century. The course will concentrate on the novels of Virginia Woolf and E.M. Forster and the biographies of Lytton Strachey, but the range of the group's achievement will also be indicated by consideration of the art criticism of Roger Fry and the autobiographies of Leonard Woolf and Clive Bell.  
J.G. Hayman S(3-0)

**ENGL 391 (1½) STUDIES IN LITERARY GENRE**

(Intend to offer 1989-90)  
NO(3-0)

**ENGL 392 (1½) STUDIES IN A MAJOR FIGURE**

This course is intended to provide opportunities for occasional offerings of single authors who do not justify permanent representation as do Chaucer, Shakespeare, Spenser, and Milton.

Section A: Jane Austen  
Jane Austen's development as a writer, with special attention given to her conception of comedy.  
T.G. Sherwood F(3-0)

Section B: Ernest Hemingway: A study of the major works of Ernest Hemingway

The course will examine influences on Hemingway's style and thought, the social milieu in which Hemingway wrote, and the public personality he developed in connection with his literary career.  
E.R. Zietlow S(3-0)

**ENGL 393 (1½) MYTH AND LITERATURE**

NO(3-0)

**ENGL 394 (1½) THEMATIC APPROACHES TO LITERATURE: I**

(May not be offered 1989-90)  
This Year: The Birth of Modernism in Literature and the Arts  
The first two decades of the 20th century saw radical changes in the forms of both verbal and visual arts. The poets and painters of Imagism and Vorticism attributed their stylistic innovations to a "new classicism": a revised estimation of man's cognitive and creative capacities that sought to counter the prevailing "romantic" tradition. This course will begin by clarifying the philosophical disputes that gave birth to the modernist aesthetic, and go on to trace their connection with some representative works of poetry, fiction, painting, and sculpture. The artists considered will include Yeats, Hulme, Pound, Eliot, Ford, Lewis, and Gaudier-Brzeska.  
P. Rae F(3-0)

**ENGL 399 (1½) WOMEN AND LITERATURE**

A variable content course involving texts by and about women, and examining feminist perspectives on literature. (3-0)

This Year: Introduction to Feminist Literary Theory

This course will focus on crucial issues in contemporary feminist theory and practice. It will investigate the strategies used by women to evaluate literature written by women as a reflection of female experience, to resist the patriarchy, and to create an alternative and separate female discourse. Students will be introduced to basic theoretical issues, sociohistorical influences, biological determinants, institutional constraints, textual and interpretive strategies. Texts will be essays and books (selections) by Anglo-American and continental feminist theorists.  
E.M. Cobleby S(3-0)

**ENGL 400 (1½) ADVANCED WORKSHOP IN COMPOSITION**

The course will offer workshops in general and specialized kinds of writing. Different sections will concentrate on such problems as stylistics, modern theories of grammar, technical writing, business writing, preparation of briefs and reports. The topic for each section will be announced annually. Classes will be limited to 20 students. The course may be taken for a maximum of 3 units with departmental permission, but only 1½ units may be used to complete the requirements for a general, major or honours program in English.

This Year: Workshop in Expository Prose

The course will offer students practice in the writing and criticism of expository prose. (Prerequisite: Competence in the English language)  
W. Benzie, C.J. Partridge FS(3-0)

**ENGL 402 (formerly 301) (3) CHILDREN'S LITERATURE**

Oral and written works that form part of children's imaginative experience; folk tales, picture books, poems, stories, and novels are discussed in their social, psychological, political, and moral contexts. The approach may be historical, critical, or cross cultural. (This course and ED-B 341 offer interchangeable credit in the Intermediate Language Arts area of the Faculty of Education.)  
NO(3-0)

**ENGL 403 (formerly 302) (1½ formerly 3) LITERARY APPROACHES TO CHILDHOOD AND ADOLESCENCE**

The course explores literary works, mainly of the 20th century, that dramatize adult attitudes to children and the behaviour of young persons during childhood and adolescence in the context of relevant theories concerning child development. The approach is cross cultural. Supplementary film or other material will be used as available.  
NO(3-0)

**ENGL 405 (1½) STUDIES IN LITERATURE AND FILM**

A study of various relationships between the art of film and relevant literary works. Topics will vary and will be announced annually. English major and honours students may take this course as an elective only. Can be taken more than once for credit, to a maximum of 3 units.

This Year: Narrative Theory in Literature and Film

A study of narrative theory in relation to literature and film. Particular attention will be paid to recent developments in semiotics and feminist criticism.  
NO(3-0)

**ENGL 409 (formerly 365) (1½) THE BIBLE IN ENGLISH**

A course in the Bible as Literature, surveying basic books of the Old and New Testaments, such as Genesis, Deuteronomy, Job, Song of Songs, Psalms, selected Wisdom Literature, Isaiah, selected minor prophets, Matthew, John, Acts, selected Pauline epistles, Hebrews and Revelation. Attention will be paid to the historical influence of the English Bible on

the style and structure of English literature, as well as to the intrinsic literary features of the Biblical books themselves. (Not applicable as Renaissance credit for Major and Honours students)

D.T. Edwards S(3-0)

#### ENGL 410 (3) BACKGROUNDS TO ENGLISH LITERARY TRADITION

A study of the main currents of thought contributing to late Medieval and Renaissance Literature. The development of literary vocabulary in the Judaeo-Christian tradition. (May not be offered 1989-90)

P.J. Grant Y(3-0)

#### ENGL 414 (1½) AMERICAN FILM

A study of major accomplishments in American film. The course will consider film as both a narrative form and a means of reflecting social concerns. Some screenplays may be studied, and essays will be required.

(3-0)

#### ENGL 415 (1½) SPECIAL STUDIES IN FILM

A study of a special topic in English-language cinema.

(3-0)

#### ENGL 425 (formerly 380) (1½) SPECIAL STUDIES IN THE LITERATURE OF THE UNITED STATES

A study of American literature which will focus attention on a specific theme, problem, genre or author at the discretion of the instructor, advertised annually. (May not be offered 1989-90)

This Year: Nathaniel Hawthorne

Melville said that existence became real for Hawthorne only through suffering. In our reading of Hawthorne's fiction, we shall try to understand his concept of human nature as well as his insight into the tragic implications of an early and persistent thrust of American development. His acute social observation has meaning for our times as well as his own.

C.V. Johnson S(3-0)

#### ENGL 426 (formerly 398) (1½, formerly 3) COMPARATIVE STUDIES IN NORTH AMERICAN LITERATURE

A variable-content course which focuses on comparisons and contrasts between the literatures of Canada and the United States. The specific topic or theme will be determined by the instructor and advertised annually.

NO(3-0)

#### ENGL 427 (1½) THE AMERICAN RENAISSANCE

A study of the period 1840-1860 which saw the rise to full maturity of a distinctively American literature. Emphasis will be placed on the major figures — Poe, Emerson, Thoreau, Hawthorne, Dickinson, Melville, and Whitman — and on the literary developments and movements in prose and poetry. (May not be offered 1989-90)

T.R. Cleary F(3-0)

#### ENGL 428 (3) AMERICAN FICTION TO 1900

A survey of major American fiction in the 19th century. The first term will be a survey of the period from Brockden Brown, Cooper and Hawthorne to Crane, Norris and Dreiser; the second term will be an intensive study of the development and achievement of three major figures: Melville, Twain and James. (May not be offered 1989-90)

N.C. Smith Y(3-0)

#### ENGL 429 (3) 20TH CENTURY AMERICAN FICTION

The primary aim of the course is critical study of major texts. The secondary aim is to relate them to the social and intellectual background of the period. Authors will include: Stein, Anderson, Hemingway, Fitzgerald, Faulkner, Steinbeck, Penn Warren, Mailer, Ellison, Baldwin, Bellow, Malamud, Barth, Styron and Vonnegut.

E.R. Zietlow Y(3-0)

#### ENGL 431 (formerly 435) (1½, formerly 3) MODERN AMERICAN POETRY: I

Readings in American poetry of the period 1910-50. The main poets studied will be Robert Frost, Ezra Pound, Wallace Stevens, William Carlos Williams, and Hart Crane. Contextual reference will be made to other poets such as Marianne Moore, E.E. Cummings, T.S. Eliot, and the Fugitives. (Intend to offer 1989-90)

NO(3-0)

#### ENGL 432 (1½) MODERN AMERICAN POETRY: II

Detailed study of poets and poetry movements since 1950 such as the following: John Crowe Ransom, Allen Tate and the Fugitive Group; Charles Olson and the Black Mountain Movement; Allen Ginsberg, Gary Snyder and the Beat Generation; Robert Bly and "deep image"

poetry; Robert Lowell, Sylvia Plath, and the confessional poets; John Berryman, Theodore Roethke, John Ashbery. (May not be offered 1989-90)

C.D. Doyle S(3-0)

#### ENGL 433 (1½) MODERN ANGLO-IRISH LITERATURE

Focuses primarily but not exclusively on the Irish Renaissance; emphasis will be placed on Wilde, Yeats, and Joyce, and other authors to be studied may include Shaw, Synge, Stephens, O'Casey, Clarke, O'Conner, and Beckett. The background of ideas and social forces in the period will receive some attention.

NO(3-0)

#### ENGL 434 (1½) BRITISH POETRY FROM 1914 TO THE PRESENT DAY

This course will include discussion of the main poetic movements of the period, together with explanations of the work of individual poets, such as Wilfred Owen, T.S. Eliot, David Jones, Dylan Thomas, W.H. Auden, W.B. Yeats, D.H. Lawrence, Hugh MacDiarmid, and others. (May not be offered 1989-90)

D.S. Thatcher F(3-0)

#### ENGL 436 (3) 20TH CENTURY BRITISH FICTION

Close study of one or more of the works of the prominent writers, Conrad, James Joyce and D.H. Lawrence, and some of their contemporaries and successors. Emphasis is both critical and historical. Essays are required and students are urged to form their own judgements with little reference to works of critics. The majority of the texts are to be announced and will include some of the following authors: E.M. Forster, Virginia Woolf, Aldous Huxley, Evelyn Waugh, Graham Greene, Joyce Cary, Samuel Beckett, Angus Wilson, Alan Sillitoe, Kingsley Amis, William Golding.

T.L. Williams, D.S. Thatcher Y(3-0)

#### ENGL 437 (3) BRITISH AND AMERICAN DRAMA SINCE WORLD WAR I

A study of the play as a literary form and an examination of styles, techniques, themes and moods which have been explored in 20th century drama, including a brief historical survey of the 19th century theatre. Some attention will be paid to the techniques of acting and direction, theatre design, and audience requirements which have influenced the playwright; however, this is not a practical theatre course. Essay topics will encourage development of the student's own critical ability. Throughout, concentration will be on the text rather than on the works of critics.

A.W. Jenkins Y(3-0)

#### ENGL 439 (3) COMMONWEALTH LITERATURE

The course offers an introduction to the literature of new and emergent countries. It will discuss problems of regionalism, immigration, native rights and national myths as processes of self definition. Works from Australia, New Zealand, the Caribbean and sub-Saharan Africa will be studied; comparisons will be made with aspects of Canadian cultural development. (May not be offered 1989-90)

C.J. Partridge Y(3-0)

#### ENGL 440 (1½) THE HISTORY OF THE ENGLISH LANGUAGE

A survey of the development of the English Language from its Germanic origins to the 19th century, with particular reference to semantic, etymological, phonetic, morphological and syntactic modifications of primary importance to an understanding of English literature. (*Prerequisites:* Honours standing in Third or Fourth Year) (May not be offered 1989-90)

J.J. Tucker S(3-0)

#### ENGL 445 (1½) THIRD YEAR HONOURS SEMINAR, THE HISTORY OF ENGLISH PROSE STYLE

A historical and critical survey up to the present day. This course illustrates, through the study of representative prose passages, the interplay between the mind of the writer and the age he lives in. (Not open to students with 3 units credit for 446)

W. Benzie F(3-0)

#### ENGL 446 (1½) FOURTH YEAR HONOURS SEMINAR

A seminar in the history of critical theory, with a study of its relation in practice to specific genres and styles.

J.G. Hayman S(3-0)

**ENGL 447 (1½) STUDIES IN MODERN LITERARY THEORY AND CRITICISM**

A study of selected topics in modern literary theory and criticism. The specific topic will be determined by the instructor and advertised annually.

This Year: Introduction to Contemporary Literary Theory

Literary theory studies what literature is, how it functions, and how it produces meaning. On the one hand, literary theory illuminates the norms, conventions, and rules that make literature possible. On the other hand, literary theory reflects on the function and meaning of criticism itself. Students will become familiar with New Criticism, Structuralism, Deconstruction, Marxist Criticism, and Feminist Criticism; they will then be able to recognize and distinguish between theoretical positions and learn to work with theoretical concepts, issues, and terminology.

E.M. Coble

F(3-0)

**ENGL 448 (1½) SPECIAL STUDIES IN CANADIAN LITERATURE**

A study of a major theme, problem, genre or author in Canadian Literature, determined by the instructor and advertised annually. NO(3-0)

**ENGL 449 (1½) SPECIAL STUDIES IN CONTEMPORARY LITERATURE**

A study of significant literary works published during the past 15 years. The course will focus on themes and issues engaged by authors from throughout the English-speaking world. (Sample authors: Patrick White, John Fowles, Robertson Davies, Chinua Achebe, John Ashbery, Ian McEwan) (May not be offered 1989-90)

T.L. Williams

S(3-0)

**ENGL 450 (1½) MODERN CANADIAN FICTION: I**

A study of important Canadian authors who came to prominence in the two decades following World War II; major figures considered may include Hugh MacLennan, Mordecai Richler, Ernest Buckler, Robertson Davies, and Margaret Laurence. Some attention will also be paid to the development of the short story in these years.

B.N.S. Gooch

F(3-0)

**ENGL 451 (1½) MODERN CANADIAN FICTION: II**

A study of Canadian novelists and short story writers who have achieved recognition in recent years; major figures considered may include Margaret Atwood, Alice Munro, Robert Kroetsch, Rudy Wiebe, and Jack Hodgins.

S. Kombourelis (451A)

F(3-0)

C.M. Rooke (451B)

S(3-0)

**ENGL 452 (formerly part of 397) (1½) MODERN CANADIAN POETRY: I**

A study of important Canadian poets who came to prominence in the two decades following World War II; major figures considered may include F.R. Scott, Dorothy Livesay, Earle Birney, Irving Layton, Leonard Cohen, and P.K. Page. (Intend to offer 1989-90) NO(3-0)

**ENGL 453 (formerly part of 397) (1½) MODERN CANADIAN POETRY: II**

A study of Canadian poets who have achieved recognition in recent years; major figures considered may include Phyllis Webb, Al Purdy, Margaret Atwood, and Michael Ondaatje. (May not be offered 1989-90)

S.A. Scobie

S(3-0)

**ENGL 457 (formerly 438) (3) TRADITIONS IN CANADIAN LITERATURE**

Important figures in Canada's literary development, with substantial consideration of historical, geographical, social, literary, and aesthetic influences in English and French-Canadian literature during the 19th and 20th centuries; amongst the authors to be included: Moodie, Hemon, Leacock, Grove, Pratt, MacLennan, Blais, Laurence, Davies, Ryga, Reaney, Hebert, Atwood, Layton, Birney, Avison, and selected contemporary writers. (May not be offered 1989-90)

S. Kambourelis

Y(3-0)

**ENGL 458 (FREN 487) (1½) COMPARATIVE STUDIES IN FRENCH AND ENGLISH CANADIAN LITERATURE**

An introduction to the comparative study of Canadian Literature in both official languages. Classes will be conducted in English; readings and assignments can be done in either language. However, students taking a Combined Major in Canadian Literature must read the texts in the original.

S.A. Scobie

F(3-0)

**ENGL 490 (1½) DIRECTED READING IN ENGLISH**

A specified reading project in some area of English literature to be determined by the student and the instructor; written assignments will be required. Students registering for this course must first obtain the approval of the individual instructor, the Director of Majors or Honours, and the Chairman of the Department. (NOTE: Please consult Department policy on "Directed Reading" in the General Information section.)

(3-0)

**ENGL 491 (1½) DIRECTED READING IN ENGLISH**

Further supervised study in some area of English literature; written assignments will be required. Students registering for this course must first obtain the approval of the individual instructor, the Director of Major Programs or the Director of Honours Programs, and the Chairman of the Department. (Persons who have received three units of credit for 490 prior to 1976-77 will not be allowed to take 491.) (NOTE: Please consult Department policy on "Directed Reading" in the General Information section.)

(3-0)

**ENGL 499 (1½) GRADUATING ESSAY OR DIRECTED READING PROJECT IN HONOURS**

The graduating essay or directed reading project will be done under the guidance of an individual tutor assigned in Third and Fourth years. (Prerequisite: Honours standing in Fourth year)

(0-0-2)

**GRADUATE COURSES AND SEMINARS**

Not all the following courses will be offered in a particular year. Students should consult the Department to determine the courses which will be offered this year.

All courses except 500 and 501 are variable content.

Under certain circumstances it will be possible to include one of the "Studies" courses (505-586) twice in a student's program of studies.

**ENGL 501 (1½) INTRODUCTION TO RESEARCH AND CRITICISM**

History of bibliographical criticism; problems in textual criticism and the treatment of bibliographical evidence. Some exercises required in both parts. The main project will be preparing a critical edition of a short text, with critical and textual introductions, variants and other apparatus. (Some preliminary work towards the editing project may be done through exercises for 500.)

(3-0)

**ENGL 502 (1½) AN INTRODUCTION TO SCHOLARLY METHOD AND THEORIES OF LITERARY CRITICISM**

This course will introduce students to the most important methods employed in literary studies. Students will first be introduced to literary research and to the process of writing and submitting works for academic publication. They will next be instructed in the elements of textual criticism, such as the theory and practice of editing. They will then proceed to examine the other major varieties of critical discourse, from historical criticism and *Explication de texte*, through psychological criticism, structuralism and semiotics, Marxist and feminist criticism, to the critical theory of the post structuralist era.

(3-0)

**ENGL 503 (1½) SPECIAL STUDIES: I**

(This course will be offered subject to the approval of the Department.)

(3-0)

**ENGL 504 (1½) SPECIAL STUDIES: II**

(3-0)

**ENGL 505 (1½) STUDIES IN LITERARY THEORY: I**

This year: Contemporary Narrative Theory

E.M. Coble

S(3-0)

**ENGL 506 (1½) STUDIES IN LITERARY THEORY: II**

(3-0)

**ENGL 510 (1½) STUDIES IN OLD ENGLISH LITERATURE: I**

(3-0)

**ENGL 511 (1½) STUDIES IN OLD ENGLISH LITERATURE: II**

(3-0)

**ENGL 515 (1½) STUDIES IN MIDDLE ENGLISH LITERATURE: I**

(3-0)

**ENGL 516 (1½) STUDIES IN MIDDLE ENGLISH LITERATURE: II (3-0)****ENGL 520 (1½) STUDIES IN RENAISSANCE LITERATURE: I**

This year: Shakespeare and Racism

E.I. Berry

F(3-0)

**ENGL 521 (1½) STUDIES IN RENAISSANCE LITERATURE: II**

This Year: "New Historicism" and Renaissance Literature

R.M. Schuler

S(3-0)

**ENGL 530 (1½) STUDIES IN THE LITERATURE OF THE 17TH CENTURY: I**

(3-0)

**ENGL 531 (1½) STUDIES IN THE LITERATURE OF THE 17TH CENTURY: II**

**ENGL 540 (1½) STUDIES IN THE LITERATURE OF THE 18TH CENTURY: I**

This Year: Baroque Visions: The Realistic and Satiric Modes in Augustan Literature  
T.R. Cleary F(3-0)

**ENGL 541 (1½) STUDIES IN THE LITERATURE OF THE 18TH CENTURY: II**

This year: William Blake  
H.E. Summerfield S(3-0)

**ENGL 550 (1½) STUDIES IN THE LITERATURE OF THE 19TH CENTURY: I**

(3-0)

**ENGL 551 (1½) STUDIES IN THE LITERATURE OF THE 19TH CENTURY: II**

(3-0)

**ENGL 560 (1½) STUDIES IN THE LITERATURE OF THE 20TH CENTURY: I**

This year: T.S. Eliot  
C. Doyle (3-0)

**ENGL 561 (1½) STUDIES IN THE LITERATURE OF THE 20TH CENTURY: II**

(3-0)

**ENGL 570 (1½) STUDIES IN AMERICAN LITERATURE: I** (3-0)

**ENGL 571 (1½) STUDIES IN AMERICAN LITERATURE: II** (3-0)

**ENGL 580 (1½) STUDIES IN COMMONWEALTH LITERATURE: I** (3-0)

**ENGL 581 (1½) STUDIES IN COMMONWEALTH LITERATURE: II** (3-0)

**ENGL 585 (1½) STUDIES IN CANADIAN LITERATURE: I**

This year: Contemporary Canadian Poetry and Poetics  
S.Kamboureli S(3-0)

**ENGL 586 (1½) STUDIES IN CANADIAN LITERATURE: II** (3-0)

**ENGL 590 (1½) DIRECTED READING: I** (3-0)

**ENGL 591 (1½) DIRECTED READING: II** (3-0)

**ENGL 598 (3) COMPREHENSIVE EXAMINATION**  
(Grading: INP, COM, N or F)

**ENGL 599 (7½) M.A. THESIS** (Grading: INP, COM, N or F)

**ENGL 699 (Credit to be determined) Ph.D. DISSERTATION**  
(Grading: INP, COM, N or F)

## ENVIRONMENTAL STUDIES PROGRAM

### Director

Paul R. West, B.Sc., Ph.D. (McMaster), Associate Professor, Chemistry  
*Advisory Committee:*

George A. Beer, B.A.Sc. (Brit. Col.), Ph.D. (Sask.), Professor, Physics.  
Term expires July 1, 1990

J. Anthony Burke, A.B., A.M., Ph.D. (Harvard), Associate Professor,  
Physics. Term expires July 1, 1988

Alan R. Drengson, B.A., M.A. (Wash.), Ph.D. (Ore.), Associate Professor  
Philosophy. Term expires July 1, 1988

Alan Hughes, B.A., M.A. (Tor.), Ph.D. (Birm.), Professor, Theatre. Term  
expires July 1, 1989

Theodore McDormon, B.A. (Tor.), LL.B., LL.M. (Dalhousie), of the Bar  
of Nova Scotia, Visiting Assistant Professor, Law. Term expires  
July 1, 1989

Joseph Schaafsma, B.A., M.A. (McMaster), Ph.D. (Tor.), Associate Professor,  
Economics. Term expires July 1, 1988

Herbert E. Smith, A.B., A.M. (Boston), Ph.D. (Rutgers), Professor, English.  
Term expires July 1, 1989

Gloria J. Snively, B.Sc. (Portland State), Ph.D. (Brit. Col.), Assistant Professor,  
Education. Term expires July 1, 1989

Verena J. Tunnicliffe, B.Sc. (McMaster), M. Phil., Ph.D. (Yale), Assistant  
Professor, Biology. Term expires July 1, 1988

R. Jeremy Wilson, B.A., M.A. (Alta.), Ph.D. (Brit. Col.), Assistant Professor,  
Political Science. Term expires July 1, 1989

### Student Representatives:

Tom Rimmer

Paul Senez

Lindsay Ward

The Environmental Studies Program is designed to provide students with a broad perspective on the environment. Although a number of departments have developed curricula which provide their students with in-depth preparation for addressing environmental issues from their disciplinary perspectives, the role of the Environmental Studies Program is to integrate the knowledge and methodology from a wide range of viewpoints. Environmental problems by nature encompass more than a single area; hence the need for an interdisciplinary program.

The Program is structured to serve those students with a general academic interest in environmental topics as well as those with a professional interest in the environment. It aims to solve complex environmental problems through a broad understanding of what each of the disciplines can contribute to this process. Since the courses in the Program consider natural, human and cultural phenomena in the context of technology and environmental management, they provide a useful basis for the interdisciplinary study of environmental issues.

Students are required to combine studies in a traditional discipline with their Environmental Studies Program in order to obtain a degree notation that includes Environmental Studies. Students undertake the Major in Environmental Studies together with a Major in another department (a Double Major — see p.30) or a Major with an Honours Program (Honours/Major — see p.30). These programs lead to either a B.A. or a B.Sc. degree. A General Program leading to a B.A. is also offered. By completing the requirements for the General Program together

with a Major or Honours Program in another department, students may obtain a Minor (see Minor, page 31). Students considering the Environmental Studies Program are advised to contact the Director for counseling and to register in the Program as soon as possible.

Although entry into the Program is possible at any time during undergraduate studies, many eligible courses in the Environmental Studies Program are 300 and 400 level courses with prerequisites; students should therefore plan early to incorporate these prerequisites into their schedule.

When choosing electives, the student is also encouraged to include courses in French and in areas other than the one in which the student is majoring, e.g., if the student is majoring in Science, electives should be chosen from the Social Sciences or Humanities.

## MAJOR AND GENERAL PROGRAMS IN ENVIRONMENTAL STUDIES

### MAJOR

- Completion of another Major or Honours program in the Faculty of Arts and Science, i.e., only a double Major or Honours/Major program is available.
- A minimum of six units of lower level (first and second year) courses in the Sciences, Social Sciences and Humanities from at least two areas (no more than three units from any one department), selected from the following:

### Science

BIOC 201 (1½)

BIOL 150 (3)

CHEM 100 (1½), 101 (1½), 102 (1½)

PHYS 100 (1½), 102 (3), 110 (1½)

### Social Sciences

ANTH 100A (1½), 100B (1½)

ECON 201 (1½), 202 (1½)

GEOG 101A (1½), 101B (1½)

POLI 100 (3), 250 (1½)

### Humanities

CLAS 100 (3)

ENGL 115 (1½), 215 (1½), 225 (1½)

HIST 242 (3), 260 (1½)

PHIL 100 (3), 222A (1½), 222B (1½), 232 (1½)

- Three units in quantitative concepts and methods, preferably through CSC 110 and STAT 250, or STAT 250 followed by CSC 200, but this requirement may also be met by the following alternative courses: ANTH 316/317, BIOL 250/251, ECON 240/340, GEOG 321/425 or 425/426, PHIL 203, PSYC 300A/300B, SOCI 371/471, or STAT 250/251. When the outside Major or Honours program requires the three units of quantitative concepts/methods, the course(s) chosen to satisfy this requirement may form part of that Major or Honours program.
- A minimum of fifteen upper level Environmental Studies units selected as follows:

- (i) Nine units of upper level core course requirements to be taken in the third and fourth years:  
 ES 300A, ES 300B, ES 310 (BIOL 306), ES 312 (ECON 330), ES 314 (PHIL 333), ES 400A. If one of these courses is taken as part of the outside Major or Honours requirement, it will be replaced by ES 316 (GEOG 350A).

(ii) Six additional units selected from the following list:

#### Environmental Studies

ES 316 (GEOG 350A) (1½)  
 ES 400B-D (1½ each)  
 ES 490 (1½-3)

#### Sciences

BIOC 300 (3) General Biochemistry  
 BIOL 408 (1½) The Biology of Pollution  
 CHEM 302 (1½) Industrial Chemistry with Special Reference to Air Pollution  
 CHEM 303 (1½) Industrial Chemistry with Special Reference to Water Pollution  
 PHYS 310A (1½) Physics and Technology of Energy

#### Social Sciences

ANTH 304 (1½) Technology in Culture  
 ANTH 401 (1½) Cultural Ecology  
 ECON 430A (1½) Natural Resource Economics  
 ECON 430B (1½) Topics in Natural Resource Economics  
 GEOG 450A (1½) Decision Making in Resource Management: Theory  
 GEOG 450B (1½) Decision Making in Resource Management: Practical Applications  
 POLI 457 (1½) The Politics of Environmental and Natural Resource Policy  
 PSYC 350 (3) Environmental Psychology

#### Humanities

CLAS 376 (1½) Ancient Science and Technology  
 HIST 396 (1½) Special Topics in the History of Science  
 LA 306 (1½) Ideas and Perspectives in Western Civilization: I  
 LA 307 (1½) Ideas and Perspectives in Western Civilization: II  
 PHIL 332 (1½) Philosophy and Technology

Note: None of the courses selected in (b), (d:i) and (d:ii) will be counted toward the Environmental Studies Major if they are declared as part of the outside Major or Honours requirements. With the written approval of the Director, other lower level courses may be approved under (b) above, and other upper level courses under (d:ii) above.

#### GENERAL

- (a) A minimum of six units of lower level (first and second year) courses in the Sciences, Social Sciences and Humanities, from at least two areas (no more than three units from any one department), selected from the following:

#### Science

BIOC 201 (1½)  
 BIOL 150 (3)  
 CHEM 100 (1½), 101 (1½), 102 (1½)  
 CSC 110 (1½), 200 (1½)  
 PHYS 100 (1½), 102 (3), 110 (1½)  
 STAT 250 (1½)

#### Social Sciences

ANTH 100A (1½), 100B (1½)  
 ECON 201 (1½), 202 (1½)  
 GEOG 101A (1½), 101B (1½)  
 POLI 100 (3), 250 (1½)

#### Humanities

CLAS 100 (3)  
 ENGL 115 (1½), 215 (1½), 225 (1½)  
 HIST 242 (3), 260 (1½)  
 PHIL 100 (3), 222A (1½), 222B (1½), 232 (1½)

- (b) Six units of upper level core course requirements to be taken in the third and fourth years. ES 300A, ES 310 (BIOL 306), ES 312 (ECON 330), ES 314 (PHIL 333). If one of these courses is taken as part of the outside Major or Honours requirement, it will be replaced by ES 316 (GEOG 350A).
- (c) Three units chosen from ES 316 (GEOG 350A), ES 300B, ES 400A, ES 400B-D.

**Note:** With written approval of the Director, other lower level courses may be approved under (a) above.

#### MINOR

Completion of the general program as well as the requirements for another Major or Honours program in the Faculty of Arts and Science is

required to obtain the Minor designation in Environmental Studies.

None of the courses chosen in (a), (b) and (c) will be used toward the Environmental Studies Minor if they are declared as part of the outside Major or Honours requirements.

**Note:** Students who have registered in one of the options of the Environmental Studies Program described in a previous calendar will be allowed to complete that option if they so wish. Alternatively they may wish to modify their program as described above in order to receive the Major or Minor designation.

## COURSES

ES 300A and B examine environmental issues, viewpoints and values in environmental problem solving through a combination of group discussions, guest speakers, field trips, projects, workshops on communication, data handling and team decision making skills. Active participation in discussion is expected. Weekend field trips for which a fee will be charged are a required element of these courses. Enrollment limited.

(Course offering codes: Y=Sept.-Apr., F=Sept.-Dec., S=Jan.-Apr., K=May-Aug., NO=Not offered, this session.)

### ES 300A (formerly part of 300) (1½) ENVIRONMENTAL PERSPECTIVES

An examination of a number of persistent themes and dilemmas underlying selected environmental issues of current interest. In order to develop a historical and cultural perspective of nature, attention will be given to the influence of western culture on the human/environment relationship including competing values, political institutions and world views. This course will be conducted as a seminar and will include a term project and a field trip. (*Prerequisite:* third year standing or permission of the Director)

F(3-0)

### ES 300B (formerly part of 300) (1½) ENVIRONMENTAL ISSUES

An in depth systematic examination of environmental issues through individual or small group projects. The formulation of appropriate responses to environmental problems; modes of interaction and communication with professional and community groups; application of theory to practice; qualitative vs. quantitative research methods. (*Prerequisite:* 300A or permission of the Director)

S(3-0)

### ES 310 (BIOL 306) (1½) ECOLOGY

A survey of populations, communities, ecosystems, and the general principles of ecology. Laboratories will deal with both field and experimental aspects of ecology. Simple statistical techniques and computer packages will be used. (Biology honours and major students should take this course in conjunction with BIOL 300.)

P.T. Gregory, G.A. Allen, D.V. Ellis

F(2-3-1)

### ES 312 (ECON 330) (1½) ENVIRONMENTAL ECONOMICS

Economic principles as applied to environmental questions associated with B.C. resource exploitation. The problem of spillovers to economic processes. Externalities and their management through economic institutions. Economic aspects of man's use and conservation of the environment, particularly regarding energy, forestry, fisheries, mining, air and water. Problem of sustainable production, conservation, and possible limits to economic growth arising from scarcity of environmental resources. (*Prerequisite:* 201 or permission of the Department) (Not open to those students having credit for ECON 430, 430A or 430B)

L. Laudadio

S(3-0)

### ES 314 (PHIL 333) (1½) PHILOSOPHY AND THE ENVIRONMENT

A philosophical investigation of the moral and conceptual dimensions of environmental problems. Different philosophies of 'man and nature' will be compared. Some of the topics to be examined are: human wants and human satisfactions; nature and spiritual values; community; human obligations to other animals; defining quality of life. (*Prerequisite:* third or fourth year standing, or permission of the instructor)

A.R. Drengson

F(3-0)

### ES 316 (GEOG 350A) (1½) GEOGRAPHY OF RESOURCE MANAGEMENT

An introduction to the geographic study of natural resources: their form, inherent characteristics, and external relations with the geography of the areas in which they are found. Attention will be paid to the way in which resources and their use contribute to the character of areas and the manner in which interrelated aspects of culture — technology, perception, economic and institutional elements — help determine the pattern of use and its areal variations.

F(3-0)

**ES 400 (1½) TOPICS IN ENVIRONMENTAL STUDIES**

The topics covered in this course illustrate issues and methods of environmental studies through consideration of representative problems. Possible topics include: land impact assessment; scientific measures of environmental quality; social evaluation of environmental stress; advanced questions of natural resource or urban environmental management, environmental law. (May be repeated in different topics to a maximum of 4½ units) (*Prerequisites*: 300A and 300B or permission of the Director) (3-0)

**ES 400A (1½) ENVIRONMENTAL IMPACT ASSESSMENT**

In this course students gain familiarity with the rationale, objectives and techniques of environmental impact assessment (E.I.A.). A critical examination of E.I.A. as an analytical tool in the context of resource man-

agement and public policy is undertaken. (3-0)

**ES 400B-D (1½ each) TOPICS IN ENVIRONMENTAL STUDIES**

(Contact the Environmental Studies Office for details)

**ES 490 (1½-3) DIRECTED STUDIES**

This will normally involve individual or team studies on approved environmental topics proposed by students in consultation with faculty members. Students must design and justify their study proposals, including evaluations, in terms of their personal and professional educational goals. Projects will be supervised by one or more faculty members designated by the Director. (Restricted to Environmental Studies students.) (*Prerequisite*: 300A and 300B; third year standing with a grade point average of at least 4.50, and permission of the Director)

## DEPARTMENT OF FRENCH LANGUAGE

John C.E. Greene, B.A., M.A. (Alta.), D. de l'Univ. (Grenoble), Associate Professor and Chairman of the Department

Jennifer R. Waelti-Walters, B.A. (London), L. ès L. (Lille), Ph.D. (London), Professor

Jeanne E. Adam, L. ès L. (Toulouse), D. de IIIe cycle (Bordeaux), Associate Professor

Barrington F. Beardsmore, B.A. (Liverpool), M.A. (McMaster), Ph.D. (Brit. Col.), Associate Professor

Elaine Limbrick, B.A. (London), D. de IIIe cycle (Poitiers), Associate Professor

Jean-Pierre Mentha, L. ès Sc. Soc. (Geneva), M.Ed. (Brit. Col.), Associate Professor

Gerald E. Moreau, B.A. (Man.), M.A. (Laval), D. de l'Univ. (Poitiers), Associate Professor

Danielle Thaler, B.A. (Montréal), M.A., Ph.D., (Tor.), Associate Professor

Normand Doiron, D. ès L. (Montreal), Assistant Professor

Emmanuel Hérique, M.A., D. de 3ème cycle (Nancy), Assistant Professor

Yvonne Hsieh, B.A. (Brit.Col.), M.A., Ph.D. (Stan.), Adjunct Assistant Professor (1987-90)

Krystyna Piechura, M.A., Ph.D. (Jagiellonian Univ.), M.A. (Tor.), Assistant Professor

Derek J. Turton, B.A. (Leeds), Cert. Ed. (Nott.), M. Phil. (Leeds), Assistant Professor

Thuong Vuong-Riddick, D.E.S., D. de IIIe cycle (Paris-Sorbonne), Assistant Professor

Hélène Goulet, B.A. (U. of Vic.), Visiting Lecturer (1987-88)

Jean-Paul Mas, Baccalauréat en Philosophie (Caen), M.A. (Louisiana State), Visiting Lecturer (1987-88)

### GRADUATE PROGRAM

For information on studies leading to the M.A. degree, see page 224, for graduate courses, see page 80.

### GENERAL, MAJOR AND HONOURS PROGRAMS

Students interested in pursuing a program in French should consult with a Department advisor as early as possible

**General**

First Year: 180 (or 181/182)

Second Year: 290 (or 291/292) and 286/287, which must be completed before entry into fourth year.

Third and Fourth Years: 302 and six units of French courses numbered above 302 (excluding Courses for Teachers).

**Major**

First and Second Years: as for General program

Third and Fourth Years: 302 and 12 units of French courses numbered above 302 (excluding Courses for Teachers).

**Honours**

First Year: 180 (or 181/182) and Latin 100.

Second Year: 290 (or 291/292) and 286/287 which must all be completed with an average G.P.A. of 6.00 before admission into the Honours Program.

Third and Fourth Years: 302, 320, 390, 402 and 499 and 12 additional units of French courses numbered above 400, including courses from at least four of the following groups: (i) 425, 426; (ii) 440, 446A, 448; (iii) 409, 446B, 451, 452, 455B; (iv) 446C, 446D, 446E, 460, 462, 466, 470, 488E. (v) 480, 482, 484, 485.

An Honours program in French normally requires a total of 63 units. Admission to the Third Year Honours program requires the approval of the Chairman of the Department and the programs of Honours students are subject to the approval of the Honours Adviser. Admission to the Fourth Year Honours Tutorial (499) requires a grade of B or better in 390.

**Class of Honours degrees**

First and Second Class Honours degrees may be awarded. To obtain a First Class Honours degree a student must achieve: (1) a graduating average of at least 6.50; (2) a grade point average of at least 6.50 in those departmental courses at the 300 and 400 level that are required for the degree program; and (3) a grade point average of at least 5.50 in French 390 and 499. To obtain a Second Class Honours degree, a student must achieve: (1) a graduating average of at least 3.50; (2) a grade point average of at least 3.50 in those departmental courses at the 300 and 400 level that are required for the degree program; and (3) a grade point average of at least 2.50 in French 390 and 499.

A student who fails to meet departmental requirements for first class standing in the Honours program but has a first class graduating average will be offered the choice between Second Class Honours and a First Class Major degree. A student who fails to meet departmental requirements for second class standing but has a second class graduating average will be awarded a Second Class Major degree.

Students wishing to pursue a Double Honours degree which includes Honours in French are reminded that they will have to satisfy the above-mentioned Honours degree class requirements in French.

### COMBINED MAJOR IN ENGLISH AND FRENCH (CANADIAN LITERATURE)

The Combined Major in English and French (Canadian Literature) is not a double major in English and French, but a single B.A. degree program composed of selected courses from each department. The term "Canadian Literature" will be formally recognized on the transcript. Students should consult either department about choice of courses.

**First year**

FREN 180 (3)

Two of ENGL 115, 116, 121, 122 (3)

HIST 230 (may be taken in a later year) (3)

Electives (6)

(15)

**Second year**

FREN 285/290 (6)

One of ENGL 200, 201, 202, 203 (3)

Electives (6)

(15)

**Third and Fourth Years**

FREN 302 (3)

Courses selected from French courses numbered 320 to 470 (3)

FREN 487 (ENGL 458) (1½)

Courses selected from English Major Course Structure, b) through e), page 66 (7½)

Canadian Literature courses, of which at least 4½ upper level units must be taken in each department (10½)

Electives (4½)

(30)

## UNDERGRADUATE COURSES

The full sequence of basic language courses in French is: 100, 160, 180, 290, 302, 402. Students may enter this sequence at different levels; normally, beginners register in 100, students with French 11 in 160 and those with French 12 in 180. Advanced placement, or placement at a lower level than normal, is possible with permission of the Department.

Written permission is required for entry to all first year courses. All students registering in French for the first time at the University of Victoria are urged to consult the Department about placement.

Students who obtain advanced placement may be eligible for credit by course challenge; there are limitations on eligibility. Students should consult the Department.

No student may obtain credit, including transfer credit, for more than nine units of French at the first year level; no student with French 12 may obtain credit for more than six units of French at the first year level.

Courses marked with an asterisk (\*) are not offered owing to financial exigency. The Department intends to offer them as soon as funding is available.

Students wishing to take Third and Fourth Year courses to meet requirements for a B.A. degree on the General, Major or Honours program, must satisfy the Department that they have satisfactory standing in appropriate courses at the 200 level (usually 285 and 290). Normally the courses numbered 302 and 350 must be taken in the Third Year.

*Students wishing to take as electives those Fourth Year courses without specified prerequisites must satisfy the Department that they have an adequate knowledge of French.*

*Students wishing to take French 425 are advised that some knowledge of Latin is recommended, although not required.*

*Students wishing to take senior language courses are advised to take 320 as early as possible.*

### Advice to Francophone students

Francophone students may not obtain credit for 100, 160, 165, 180, 181, 182, 280, 320 or 350. They will normally begin French studies with 286, 287 or 302. They may take 290, 291 or 292 only with special permission. A Francophone is defined in this context as a person who has spoken French since childhood and who has received sufficient instruction in French to be literate in French.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### FIRST YEAR

#### FREN 100 (3) BEGINNERS' FRENCH

An intensive introduction to spoken and written French with emphasis on oral work. Students from this course who are interested in further studies in French will proceed to 160. (*Prerequisite:* None. Not normally open to students having credit in French 11 or its equivalent) Text: Muyskens et al., *Rendez-vous*, 2nd ed. Y(3-1)

#### FREN 160 (3) ELEMENTARY FRENCH LANGUAGE

Instruction in written and oral use of the French language based on a language manual and numerous short readings. Regular oral practice and short written assignments will be required. (NOTE: Not normally open to those who have completed French 12) (Not open to students with credit in 165) N. Doiron and others Y(3-2)

#### FREN 165 (1½) INTENSIVE REVIEW OF BASIC FRENCH

Intended for students whose background in French is beyond the French II level, but who require further study before entering 180, this course provides a thorough review of the basic grammar and of every day vocabulary and expression. Regular oral practice and short written assignments are required. (Not open to students with credit in 160) F(3-2)

#### FREN 180 (3) FRENCH LANGUAGE AND LITERATURE

A study of French texts, grammar, composition, and pronunciation. Y(3-1)

#### FREN 181 (1½) FRENCH LANGUAGE AND LITERATURE (A)

The first half of 180, offered in second term. (Not open to students with credit in 180) J.C.E. Greene S(3-1)

#### FREN 182 (1½) FRENCH LANGUAGE AND LITERATURE (B)

The second half of 180, offered in first term. (Not open to students with credit in 180) K. Piechura F(3-1)

## SECOND YEAR

#### \* FREN 255 (3) AN ORAL COURSE IN FRENCH CIVILIZATION

This course is given in French, and is intended to develop oral expression while giving the student basic cultural references. A survey of French civilization, with particular attention to the 19th and 20th centuries. Frequent oral presentations and discussions; occasional written assignments; periodic assignments in the laboratory hours. (Enrollment limited. Not open to students who have previously completed 285 or 290, but may be taken concurrently with either or both of these courses) (*Prerequisite:* 180 or equivalent) Y(3-1)

#### \* FREN 256 (3) AN ORAL COURSE IN FRENCH-CANADIAN CIVILIZATION

This course is given in French, and the emphasis is oral. A survey of French-Canadian civilization from 1867 to the present. Students are required to prepare oral and written presentations on a variety of subjects related to old and particularly to modern French Canada. Periodic assignments in the laboratory hour. (Enrollment limited. Not open to students who have previously completed 285 or 290, but may be taken concurrently with either or both of these courses) (*Prerequisite:* 180 or equivalent) (Intend to offer Summer 1988) G. Moreau Y(3-1)

#### FREN 286 (1½) (formerly half of 285) A SURVEY OF FRENCH LITERATURE TO 1800

A study of a number of important texts in French literature from the late Middle Ages to the French Revolution. Essays will be assigned, and there will be a final written examination. N. Doiron, J.C.E. Greene, K. Piechura F(3-0)

#### FRENCH 287 (1½) (formerly half of 285) A SURVEY OF FRENCH LITERATURE SINCE 1800

A study of a number of important texts in French literature from the French Revolution to the contemporary period. Essays will be assigned, and there will be a final written examination. (*Prerequisite:* 286, or permission of Chairman) D.J. Turton, J. Waelti-Walters, Y. Hsieh S(3-0)

#### FREN 290 (3) FRENCH ORAL AND WRITTEN PRACTICE

A course in composition and translation, based on French texts and given in French, which continues the study of grammatical points presented in 180. Both written and oral proficiency are stressed through weekly assignments and discussions. (*Prerequisite:* A grade of C or higher in 180, or permission of the Department) (Students are advised to keep their 180 grammar text for reference.) J. Adam, E. Hérique, E. Limbrick, J.-Mentha Y(3-0-1)

#### FRENCH 291 (1½) FRENCH ORAL AND WRITTEN PRACTICE (A)

The first half of 290, offered in second term. (Not open to students with credit in 290) S(3-1)

#### FREN 292 (1½) FRENCH ORAL AND WRITTEN PRACTICE (B)

The second half of 290, offered in first term. (Not open to students with credit in 290) F(3-1)

## THIRD AND FOURTH YEARS

### LANGUAGE COURSES

#### FREN 302 (3) COMPOSITION, TRANSLATION AND STYLISTICS

This course, conducted entirely in French, will require frequent written exercises, involving vocabulary and grammar; translation, stylistic commentaries; compositions. (*Prerequisite:* A grade of C+ or higher in 290, or permission of the department) J. Adam, J.-P. Mentha, D.J. Turton Y(3-0)

#### FREN 320 (1½) FRENCH PHONETICS

The theory and practice of French pronunciation, corrective phonetics, phonetic transcription, intonation, accentuation, syllabification, elision and liaison; training in reading aloud. (*Prerequisite:* 290 or equivalent) (Enrollment limited) Text: Monique Léon, *Improving French Pronunciation* B.F. Beardsmore, E. Hérique, E. Limbrick F(2-1)  
B.F. Beardsmore S(2-1)

#### FREN 350 (3) AN ADVANCED COURSE IN FRENCH WITH CONCENTRATION ON ORAL WORK

This course is designed to increase oral proficiency in French and to develop comprehension of spoken and written French. (*Prerequisites:*

normally 286/287 and 290, or permission of the Chairman of the Department) (It is recommended that students take 320 before 350, or during the first term of 350) (Enrollment limited)

J. Adam, G. Moreau, T. Vuong-Riddick Y(4-0-2)

### FREN 402 (3) AN ADVANCED LANGUAGE COURSE IN MODERN FRENCH USAGE

A continuation of 302. Written and oral expression through composition, textual analysis, translation and oral presentations, with attention paid to both literary and informal usage. (*Prerequisite*: 302 or equivalent) N. Doiron, J.-P. Mentha Y(3-0)

### FREN 420 (1½) ADVANCED FRENCH PHONETICS AND PRONUNCIATION

A continuation of 320, with advanced work in corrective phonetics, transcription, intonation and liaison. Also: regional and foreign accents, French phonology, combinatory phonetics (coarticulation). May include the use of sound spectrograms and other instrumental readings. Oral practice, including spoken vs. literary styles, high speed reading, pronunciation of difficult and foreign words. (*Prerequisite*: 320 or equivalent) (Enrollment limited) (Students interested in general phonetics and phonology should consult the Department of Linguistics.) E. Hérique S(3-0)

### FREN 425 (3) HISTORY OF THE LANGUAGE

A study of the development of the language from earliest to modern times. Some knowledge of Latin is recommended, although not required.

B.F. Beardsmore Y(3-0)

### FREN 426 (3) TRANSLATION

A comparative study of the characteristics of French and English expression and how they pertain to the problems of translation; practice in translation from English to French and from French to English. (Not open to students with credit in LING 426 before 1979-80) (*Prerequisites*: 302 or equivalent, with a grade of B or better, and ENGL 115 or equivalent) E. Hérique Y(3-0)

## LITERATURE COURSES

Students who have taken literature courses in the Department prior to 1979-80 must consult the Department before registering in 400 level literature courses.

### FREN 301 (1½ or 3) FRENCH LITERATURE AS AN ELECTIVE

This course permits students to take French literature courses as electives; it cannot be applied to a General, Major or Honours degree in French. Students registered in this course will, with the permission of the instructor, follow one of the regular session literature courses in French. Readings, lectures and discussions will be in French, but written assignments and examinations may be submitted in English. (May be repeated with different content up to a normal maximum of 3 units. A student who has taken a French literature course as 301 may not repeat it under its regular number for credit. Registration by pro forma.) (3-0)

### FRENCH 390 (1½) CRITICAL METHODS

Intended for Honours students but may be taken as an elective by other students. A practical introduction to both traditional and recent methods of analyzing literary texts. (*Prerequisite*: 286 and 287) Texts: Bourneuf and Ouellet, *L'Univers du roman*. Recommended: M. Grammont, *Petit traité de versification française* E. Limbrick F(3-0)

### FREN 409 (3) FRENCH THOUGHT AND LITERATURE IN THE 17TH CENTURY

Drama, poetry, the novel and other prose *genres* in the *Grand Siècle*. The Baroque, *Précieux* and Classical periods will be examined. Texts will be selected from the works of Corneille, Molière, Racine, La Fontaine, Pascal, La Rochefoucauld and other major authors. (Not open to students who have credit in 449, 455A) (Intend to offer 1989-90) NO(3-0)

### FREN 440 (1½ or 3) MEDIEVAL LITERATURE

Study of a number of medieval literary works in the original. Students will learn to read medieval French and acquire some knowledge of the principal literary *genres* of the period. (Intend to offer 1989-90) NO(3-0)

### FREN 446 (1½) FRENCH POETRY

Normally, only one course in French poetry will be offered each year. (3-0)

#### 446A Renaissance

Late Medieval and Renaissance poetry, with particular emphasis on the Pléiade Group. Major writers studied include Villon and Ronsard. (Not open to students with credit in 445)

E. Limbrick S(3-0)

#### 446B 17th Century

Poetry in the 17th century, including Malherbe, La Fontaine and Boileau. Some 18th century poetry may be included. (Not open to students with credit in 445) (Intend to offer 1989-90) NO(3-0)

#### 446C Romanticism

Poetry of the late 18th and early 19th centuries, with particular emphasis on the Romantic movement. Major writers studied include Hugo, Lamartine, Vigny and Musset. (Not open to students who have credit for 465) (Intend to offer 1989-90) NO(3-0)

#### 446D Late 19th Century

Baudelaire, Verlaine, Mallarmé, Rimbaud and the Symbolist poets of France and Belgium. (Not open to students who have credit for 468) (Intend to offer 1989-90) NO(3-0)

#### 446E 20th Century

Valéry, Claudel, Apollinaire and other poets of the early 20th century; the Surrealist movement; important writers and trends in recent poetry. (Not open to students who have credit for 468)

Y. Hsieh F(3-0)

### FREN 448 (1½) RENAISSANCE PROSE

Magic, laughter and the pursuit of wisdom in selected works of the French Renaissance. An introduction to major themes in Rabelais and Montaigne.

E. Limbrick S(3-0)

### FREN 451 (1½) THE ENLIGHTENMENT

Principal literary works of the *philosophes* of the 18th century.

K. Piechura F(3-0)

### FREN 452 (1½) THE NOVEL IN THE 17TH AND 18TH CENTURIES

The development of the novel through a study of major texts, with emphasis on the 18th century.

K. Piechura S(3-0)

### FREN 455B (1½) COMEDY IN THE 17TH AND 18TH CENTURIES

A literary study of comedy in France in the classical period, with special emphasis on the works of Molière, Marivaux and Beaumarchais. (Intend to offer 1989-90) NO(3-0)

### FREN 460 (3) THE NOVEL IN THE 19TH CENTURY

The development of the novel in France during the 19th century, including works by Stendhal, Balzac, Flaubert and Zola. (Not open to students who have credit for 460A or 460B)

D.J. Turton Y(3-0)

### FREN 462 (3) THE NOVEL IN THE 20TH CENTURY

The changing face of the novel from Marcel Proust to the *nouveau Nouveau Roman*. (Intend to offer 1989-90) NO(3-0)

### FREN 466 (formerly part of 465) (1½) 19TH CENTURY THEATRE

Melodrama, the Romantic theatre, *vaudeville* and the Naturalist movement in theatre. Writers studied include Hugo, Musset, Dumas  *fils*, Labiche and Becque. (Intend to offer 1989-90) NO(3-0)

### FREN 470 (1½, formerly 3) MODERN FRENCH THEATRE

A survey of modern French drama, principally of the 20th century.

J. Waelti-Walters S(3-0)

### FREN 480 (1½) THE FRENCH-CANADIAN NOVEL FROM THE ORIGINS TO THE MODERN PERIOD

A survey of the French-Canadian novel with special emphasis on the first half of the 20th century.

G. Moreau S(3-0)

### FREN 482 (1½) CONTEMPORARY FRENCH-CANADIAN NOVEL

The French-Canadian novel in the second half of the 20th century, in particular *la nouvelle écriture* since 1960. (Intend to offer 1989-90)

NO(3-0)

**FREN 484 (formerly half of 481) (1½) CONTEMPORARY FRENCH-CANADIAN THEATRE**

French-Canadian theatre since 1950, with emphasis on the search for identity in the works studied. (Not open to students with credit in 418) T. Vuong-Riddick F(3-0)

**FREN 485 (formerly part of 483, 481) (1½) FRENCH-CANADIAN POETRY**

French-Canadian poetry from Emile Nelligan to the present. Emphasis on Alain Grandbois, St-Denis-Garneau, Anne Hébert, Gaston Miron, Fernand Ouellette, Michel Beaulieu, Nicole Brossard. (Intend to offer 1989-90) NO(3-0)

**FREN 487 (ENGL 458) (1½) COMPARATIVE STUDIES IN FRENCH AND ENGLISH CANADIAN LITERATURE**

An introduction to the comparative study of Canadian Literature in both official languages. Classes will be conducted in English; readings and assignments can be done in either language. However, students taking a Combined Major in Canadian Literature must read the texts in the original.

S.A.C. Scobie

F(3-0)

**FREN 488 (1½) SPECIAL TOPICS**

Designed for Major and Honours students, this course may be offered as a reading course, a tutorial, or a seminar or a course of lectures (as circumstances warrant). Topics may be selected in one or more of the following: (however, no more than 1½ units from 488 and 489 may be counted toward a General program in French, nor may more than 3 units of 488 and 489 combined be counted toward a Major or Honours program in French.) (3-0)

488A Modern Prose. Major prose writers of the 19th and 20th centuries. (May be available as Directed Studies only) NO

488C Utopias and Science Fiction  
Utopian, anti-Utopian and science fiction writing from the 17th century to the present.

J. Greene

F(3-0)

488D Special Topics in French-Canadian Literature  
Some important texts not dealt with in French 480, 482, 484 or 485. (May be available as Directed Studies only) NO

488E African Literature  
A survey of African French language writing, with special emphasis on North Africa. (May be available as Directed Studies only) NO(3-0)

488F Women Writers. A look at the way Francophone women have described the world.

J. Waelti-Walters

F(3-0)

488G Studies in a Major Author or Movement  
Intensive study of an important writer or literary movement. When offered, topic will be announced. (May be available as Directed Studies only) NO

488H Children's Literature  
Examination of the development and diversification of children's literature since the 17th century, in both France and Quebec. (Not open to students with credit in 488B) (Intend to offer 1990-91) S(3-0)

**FREN 489 (1½) CINEMA**

One or more of the following courses in French cinema may be taken; however, no more than 1½ units of 489 and 488 combined may be counted toward a General program in French, nor may more than 3 units of 489 and 488 combined be counted toward a Major or Honours degree in French. Evaluation will include written assignments, class participation and a final written examination. (Prerequisite: 286 or 287 or a literature course at a similar level in another language or HA 295) (3-0)

489A History of French Cinema

The course will cover the period from the start of the "talkies" to contemporary cinema, and will present various methods of analysing films. Seven or eight films from France will be studied.

T. Vuong-Riddick

S(3-0)

489B Quebec Cinema

The beginnings of Quebec cinema; foremost directors; representative films; current tendencies. (Not open to students with credit in 481, 483, or 488J) NO

**FREN 499 (1½) HONOURS GRADUATING ESSAY**

During the final year of the Honours program, students will write a graduating essay in French of 7,500 to 10,000 words under the direction of a member of the Department, the topic to be approved by the Honours Committee. The essay must conform to acceptable standards of style and format and be submitted before the end of second term classes. An oral examination in French covering the topic of the essay will be held. D.J. Turton Y

**COURSES FOR TEACHERS**

The courses in this section are open only to teachers who hold a British Columbia teaching certificate.

**Summer French Immersion Program for Public School Teachers**

Courses in the following group are available only as part of an off campus immersion program. Admission based on a placement test given on the first day.

**FREN 133T (1½) INTRODUCTORY ORAL COURSE IN FRENCH (SUMMER IMMERSION PROGRAM)**

A three week immersion course for beginners and near beginners using audio visual methods. Text: *De Vive voix* or *Dialogue Canada*.

R(15-15-2)

**FREN 233T (1½) INTERMEDIATE IMMERSION COURSE (SUMMER IMMERSION PROGRAM)**

A three week immersion course for students who have a basic grounding in French. Both oral and written forms are studied, but with an emphasis on oral work.

R(15-15-2)

**FREN 333T (1½) ADVANCED IMMERSION COURSE (SUMMER IMMERSION PROGRAM)**

A three week immersion course for students who have a good knowledge of French. Both oral and written forms are studied, but with an emphasis on oral work.

R(15-15-2)

**GRADUATE COURSES**

(Not offered 1988-89)

NOTE: A selection of these courses will be given depending upon the availability of members of faculty. Students should consult the Graduate Adviser before making choices. In addition students should read carefully the entry under Faculty of Graduate Studies, French.

**FREN 501 (1½) FRENCH LITERARY CRITICISM SINCE SAINTE-BEUVE****FREN 506 (1½) PASCAL IN HIS TIME****FREN 514 (1½ or 3) BAUDELAIRE IN HIS TIME****FREN 516 (1½ or 3) LE NOUVEAU ROMAN IN FRANCE****FREN 517 (1½ or 3) MARCEL PROUST A LA RECHERCHE DU TEMPS PERDU****FREN 518 (1½ or 3) LIFE AND WORKS OF ROMAIN ROLLAND****FREN 521 (1½ or 3) MONTAIGNE'S ESSAIS AND THEIR LITERARY AND PHILOSOPHICAL INFLUENCE****FREN 540 (1½ or 3) STUDIES IN MEDIEVAL LITERATURE****FREN 562 (1½ or 3) EXISTENTIALISM IN LITERATURE****FREN 565 (1½ or 3) SOCIAL ROMANTICISM 1830-1848****FREN 590 (1½ or 3) DIRECTED STUDIES****FREN 599 (6) THESIS**

(Grading: INP, Com, N or F)

## DEPARTMENT OF GEOGRAPHY

Colin J. B. Wood, B.A. (Wales), M.A., Ph.D. (McMaster), Associate Professor and Chairman of the Department  
 Charles N. Forward, B.A., M.A. (Brit. Col.), Ph.D. (Clark), Professor  
 Harold D. Foster, B.Sc., Ph.D. (London), Professor  
 Peter E. Murphy, B.Sc.Econ., Teachers Dip. (London), M.A., Ph.D. (Ohio St.), Professor  
 J. Douglas Porteous, B.A., M.A. (Oxon.), Ph.D. (Hull), Professor  
 Philip Dearden, B.A. (Birm.), M.Sc. (Memorial), Ph.D. (U. of Vic.), Associate Professor  
 Michael C.R. Edgell, B.A. (Birm.), Conservation Dip. (London), Ph.D. (Birm.), Associate Professor  
 David Chuen-Yan Lai, B.A., M.A. (Hong Kong), Ph.D. (London), Associate Professor  
 J. Bruce Prior, B.A. (Linfield College), M.T.S. (Harvard), M.A. Cornell, Ph.D. (S. Fraser), Visiting Assistant Professor (1987-88)  
 William M. Ross, B.Ed. (Brit. Col.), M.A. (Tor.), Ph.D. (Wash.), Associate Professor  
 Stanton E. Tuller, B.A. (Ore.), M.A. Ph.D. (Calif., Los Angeles), Associate Professor  
 Mark S. Flaherty, B.E.S. (Waterloo), M.A. (Guelph), Ph.D. (McMaster), Assistant Professor  
 C. Peter Keller, B.A., (Dublin), M.A., Ph.D. (W.Ont.), Assistant Professor  
 Eileen Van der Flier-Keller, B.A. (Dublin), Ph.D. (W. Ont.), Assistant Professor  
 Gary E. Barrett, B.A., M.A. (Brit. Col.), Visiting Lecturer (1987-88)  
 Gilian D. Sherwin, B.A. (Witwatersrand), Senior Laboratory Instructor  
 Ian H. Norie, B.A. (U. of Vic.), Senior Academic Assistant

### GRADUATE PROGRAMS

For information on studies leading to the M.A. and Ph.D. degrees, see page 224, for graduate courses, see page 87.

### LIMITATION OF ENROLLMENT

Students are advised that because of limited facilities and staff it may be necessary to limit enrollment in certain Geography courses. Enrollment limits will be imposed primarily on the basis of facilities available and academic standing.

### GENERAL, MAJOR AND HONOURS PROGRAMS

The Geography Department offers courses leading to the B.A., B.Sc., M.A. and Ph.D. degrees, with a choice of General, Major, and Honours programs for both bachelor degrees. Information about course combinations suited to specific professional objectives and about graduate programs is available from the Department. In general, the Department recommends appropriate first year mathematics or computer science courses, especially Computer Science 110 and 115, for the B.A. Major and Honours programs, and considers a second year mathematics course desirable for B.Sc. candidates. Second year Geography Major and Honours students may take the required Geography 321 and one of 322, 323 or 325 in their second year, if they wish.

Students who seek academic counselling are asked to come to the Department before or during the registration period.

In certain courses, students may be required to meet part of the expenses involved in required field trips, course supplies or the provision of course manuals. Students will be advised of such expenses during the first week of classes.

#### Departmental Requirements for the B.A. General and Major in Geography:

**General** — 15 units: 101A and 101B; 3 units chosen from 201A, 201B, 203A, 203B, 205A, 205B; and 9 units of courses numbered 300 or above, 3 units of which selection must be a regional course.

**Major** — 24 units: 101A and 101B; 6 units of second year courses, which must include 201A or 201B, 203A or 203B, and 205A or 205B; 15 units of courses numbered above 300 which must include 321, at least one of 322, 323, or 325; and 3 units of regional courses.

#### Departmental Requirements for the B.Sc. General and Major in Geography:

**General** — 15 units: 101A and 101B; 3 units chosen from 201A, 201B, 203A, 203B, 205A, 205B; 321, and one of 322, 323 or 325; 1½ units chosen from 370, 372, 374, 376; 4½ units chosen from other 300 or 400 level geography courses; and 3 units of mathematics or computer science.

NOTE: 3 units of regional geography courses are strongly recommended for both General and Major B.Sc. degrees.

**Major** — 24 units: 101A and 101B; 203A and 203B; 3 units chosen from 201A, 201B, 205A, 205B; 321; 3 units chosen from 322, 323, 325, 423, 427; 3 units chosen from 370, 372, 374, 376, 471; 1½ units chosen from 425, 426, 428; 6 units chosen from any other 300 or 400 level geography courses.

NOTE: 3 units of regional geography courses are strongly recommended as electives for both General and Major B.Sc. degrees.

All B.Sc. Major students are required to obtain:

- GEOL 100A and 100B
- Three units of credit from Mathematics 100, 101, 102, 151
- One and one-half units of computer science other than Computer Science 100.
- An additional four and one half units from the following list or from 300 or 400 level courses that count toward B.Sc. major degrees in the outside disciplines listed below:

ASTR 120, 200A, 200B  
 BIOC 200, MICR 200  
 BIOL 150, 200, 203, 204, 206, 207  
 3 units of 100 level Chemistry  
 C SC 100, 110, 115, 200, 230, 250, 275, 340  
 ECON 201, 202  
 GEOL 201, 202, 203, 204  
 MATH 100, 101, 102, 151, 200, 222, 233A, 233B, 233C, 240  
 STAT 250, 251  
 PHYS 100, 102, 110, 120, 125, 210, 214, 215, 216, 217, 220

#### Departmental Requirements for the B.A. and B.Sc. Honours in Geography:

33 units minimum: all of the 24 units of course requirements for the B.A. Major or the B.Sc. Major; 324, 499 and 4½ additional units in Geography or in other approved courses numbered above 300 chosen in consultation with the Department. At the end of the fourth year, the candidate will take an oral examination and submit an Honours Essay.

Students normally enter the Honours Program in their third year, having applied at the end of their second year. Requirements for entry into the Honours Program are: completion of two successful years at university (see "Faculty of Arts and Science — Honours Program" entry in this calendar) and a grade point average of at least 5.00 in all work for the second year (with 5.50 in Geography courses). A student wishing to enter the program in the fourth year (at the end of the third year) must have a grade point average of at least 5.50 (with 6.00 in Geography courses) for work completed in the third year.

A grade point average of 5.50 (with 6.00 in Geography courses) must be achieved by an honours student to progress from third to fourth year in the Honours Program. Students who do not maintain this average will be required to transfer to a Major Program.

A First Class Honours degree requires a graduating average of at least 6.50; a grade point average of at least 7.00 in 300 and 400 level courses taken in the Department and at least B+ in 499.

A Second Class Honours degree requires a graduating average of at least 3.50; and a grade point average of at least 4.00 in 300 and 400 level courses taken in the Department and at least a B- in 499.

Honours students who do not meet the above requirements, but complete those for a Major in Geography, may opt to receive a Major degree. A student who opts for this and who has a graduating average of 6.50 or higher would receive a Major in Geography with First Class standing, while a student with a graduating average between 3.50 and 6.49 would receive a Major degree with Second Class standing.

Students should note the availability of Liberal Arts 306/307 (page 95) and Pacific Studies 200 (page 107) as electives in their senior years.

### GEOGRAPHY COOPERATIVE EDUCATION PROGRAM

The Cooperative Education Program in the Faculty of Arts and Science is described on page 31. Additional general regulations pertaining to Cooperative Education Programs of the University of Victoria are found on page 28.

Entry into the Geography Cooperative Program is restricted to students who are enrolled in an Honours or Major program in Geography. Students will be admitted either at the end of their first year, or at the

beginning or end of their second year. Deadlines for receipt of applications are September 15 or January 15. To enter and remain in the Geography Cooperative Program, students must maintain a B+ average in Geography and a B average overall. Students are also required to complete satisfactorily at least four work terms. A student may withdraw from the program and graduate with the normal Geography B.A. or B.Sc. degree.

Each work term is recorded on the student's official transcript of academic record (as COM, N, or F). Details of work terms are recorded on the Record of Work Terms which is attached to the Academic Record.

Further information concerning the Geography Cooperative Program may be obtained from the Department.

## UNDERGRADUATE COURSE INDEX

**First Year** 101A (1½), 101B (1½), 102 (1½)

**Second Year** 201A (1½), 201B (1½) Economic; 203A (1½), 203B (1½) Physical; 205A (1½), 205B (1½) Cultural

**Third and Fourth Years**

### Techniques and Methods

321 (1½)	Introduction to Quantitative Methods in Geography	459B (1½)	Recreation Resource Analysis: Evaluation Planning and Management
322 (1½)	Air Photo Interpretation	471 (1½)	Seminar in Physical Geography
323 (1½)	Introductory Cartography		
324 (1½)	Directions in Geography		
325 (1½)	Field Survey Techniques		
423 (1½)	Advanced Cartography		
425 (1½)	Survey Methods and Analysis		
426 (1½)	Advanced Quantitative Methods		
427 (1½)	Cartographic Production		
428 (1½)	Automated Cartography		
490 (1½ or 3)	Directed Studies		
499 (3)	Honours Seminar and Essay		

### Resources and Physical

350A (1½)	Geography of Resource Management	330 (1½)	Understanding Cities
350B (1½)	Applied Resource Geography	341 (1½)	Industrial Geography
370 (1½)	Hydrology	342 (1½)	Urban Historical Geography
371 (1½)	Water Resources Management	343 (1½)	Regional Analysis
372 (1½)	Climatology	344 (1½)	Urban Systems Simulation
373 (1½)	Applied Climatology	345 (1½)	Geography and Planning of Tourism
374 (1½)	Biogeography	347A (1½)	Geography of Economic and Cultural Change: Developed World
375 (1½)	Forest Resource Management	347B (1½)	Geography of Third World Development
376 (1½)	Geomorphology	349 (1½)	Internal Structure of Cities
377 (1½)	Applied Geomorphology	378 (1½)	Environmental Aesthetics
450A (1½)	Decision Making in Resources Management: Theory	440 (1½)	Urban Geography of Canada
450B (1½)	Decision Making in Resources Management: Practical Applications	442 (1½)	Geography of Chinatowns and Chinese Migration
451 (1½)	Advanced Water Resources Management	443 (1½)	Geography of Regional Development
452 (1½)	Coastal Resource Analysis	444 (1½)	Urban Transportation and Land Use Planning
453 (1½)	Marine Resource Analysis	445 (1½)	Community Development and Planning in Canada
454 (1½)	Geographical Dimensions of Energy Policy	446 (1½)	Development and Planning of the Urban Region
459A (1½)	Recreation Resource Analysis: Concepts	447 (1½)	Urban Problems of Pacific Rim Developing Countries
		448 (1½)	Urban Social Geography and Planning

### Regional

361A (1½)	Geography of Canada: Systematic Approach		
361B (1½)	Geography of Canada: Regional Approach		
364 (1½)	Traditional China		
365 (1½)	Modern China		
463A (1½)	Geography of Mainland S.E. Asia		
463B (1½)	Geography of Insular S.E. Asia		
465 (3)	Japan		

### Geology

100A (1½)	Earth Materials and Processes at the Earth's Surface
100B (1½)	Earth's Internal Processes and Historical Geology
201 (1½)	Stratigraphy
202 (1½)	Structural Introduction to Mineralogy
203 (1½)	Introduction to Petrology
204 (1½)	Introduction to Petrology

## UNDERGRADUATE COURSES

### GEOGRAPHY

**101A and 101B are prerequisites to all other geography courses, except 102 and 330.** These prerequisites may be waived by the Department in certain circumstances. Students should also note that 101A and 101B can be taken in any sequence or concurrently. In the event that a student who has had 101A/101B waived proceeds to a General, Major or Honours program in Geography, the student may be required to substitute 3 units of Geography courses as recommended by the Department.

Students should consult the Department concerning courses offered in any particular year.

For courses carrying A or B designations, A is not a prerequisite of B unless indicated under the course description.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### GEOG 101A (1½) MAN AND THE PHYSICAL ENVIRONMENT

An integrated introductory description and analysis of the characteristics and interactions of the atmosphere, hydrosphere, lithosphere and biosphere. An introduction to the study of natural resources and contemporary problems in resource management.

P. Dearden, M. Edgell

FS(2-2)

### GEOG 101B (1½) THE HUMAN ENVIRONMENT

The processes of cultural change, migration and acculturation and their roles as determinants of changing cultural landscapes and regions. The origins of cities, the historical growth of cities, and the form and structure of the contemporary city.

W. Ross, P. Murphy

FS(2-2)

### GEOG 102 (1½) CONTEMPORARY ISSUES IN CANADIAN REGIONS

A comprehensive geographic study of the macroregions of Canada, the Atlantic Provinces, Quebec, Ontario, and Prairie Provinces, British Columbia, and the Territories, will establish the background for a more detailed consideration of specific regional problems. These may include such problems as the drive for industrial diversification in the West, the development of energy sources in the Atlantic Provinces, the French-English conflicts in and around Quebec, and the native land claims in the Northwest Territories. Some issues may be local, such as the preservation of fruit growing land on the Niagara Peninsula of Ontario. (Open to students from any department. 101A and 101B are not prerequisites to this course. Not for credit toward major or honours degree programs in Geography, but may be taken for credit as an elective.)

C. Forward

S(3-0)

### GEOG 201A (1½) LOCATION OF ECONOMIC ACTIVITIES

A systematic geographical analysis of the characteristics and areal distribution of urban centres with emphasis on population, industrial structure, location and the sectoral distribution of activity within the urban region. Special attention will be directed to the underlying factors associated with differential urban growth, and the determinants of locational change.

M. Flaherty

F(2-2)

### GEOG 201B (1½) ECONOMIC GEOGRAPHY – PRIMARY ACTIVITY AND DIFFERENTIAL GROWTH

An examination of the role of primary industry in the world economy. Particular attention will be paid to the role of resource endowment as a determinant of standard of living. Strategies for growth and the impact of the energy sectors on national planning goals will be investigated. Agriculture, mining, transportation, and forestry will be discussed.

S(2-2)

### GEOG 203A (1½) PHYSICAL GEOGRAPHY I: HYDROSPHERE AND LITHOSPHERE

An introduction to the hydrosphere and lithosphere, including the processes involved in the development of landforms and that part of the hydrologic cycle involving surface and underground water.

H. Foster

F(2-2)

### GEOG 203B (1½) PHYSICAL GEOGRAPHY II: ATMOSPHERE AND BIOSPHERE

An introduction to the basic processes which determine the distribution patterns of climate, soil and living organisms. Included will be a discussion of radiation budgets, atmospheric moisture and circulation, soil forming processes and factors, and vegetation development and distribution.

S. Tuller

S(2-2)

**GEOG 205A (1½) AN INTRODUCTION TO CULTURAL GEOGRAPHY**

This course attempts to develop an awareness of cultural diversity throughout the world, emphasizing factors that cause this diversity and to develop an understanding of the impact that culture has upon human societies and the natural environment.

C.-Y. Lai F(2-2)

**GEOG 205B (1½) SELECTED THEMES IN CULTURAL GEOGRAPHY**

This course examines the implications of cultural attributes on land occupancy and patterns of living in selected regional settings.

C.-Y. Lai S(2-2)

**TECHNIQUES AND METHODS****GEOG 321 (1½) INTRODUCTION TO QUANTITATIVE METHODS IN GEOGRAPHY**

An introduction to statistical procedures and their application to geographical problems. The course will focus upon the basic statistical techniques, beginning with descriptive methods and concluding with correlation analysis. Students will have the opportunity to use this knowledge in empirical analysis of assigned class topics. (Open only to students pursuing a program in Geography or Environmental Studies).

M. Flaherty FS(3-2)

**GEOG 322 (1½) AIR PHOTO INTERPRETATION**

An introduction to photogrammetry and interpretation of aerial photographs. Attention is focused on training in the use of air photos as source materials in map compilation and as tools for research in physical and social sciences. Among the topics studied are: principles and techniques of photo interpretation; inductive and deductive evaluation of air photo patterns; and remote sensing techniques. Laboratory assignments and field work will be emphasized.

FS(2-2)

**GEOG 323 (1½) INTRODUCTORY CARTOGRAPHY**

An introductory course in cartography and cartographic techniques; including spatial reference systems, map projections, techniques of terrain representation, cartographic symbolization of statistical data, and elementary data handling problems. Students will gain practical experience in designing and drafting maps.

P. Keller FS(2-2)

**GEOG 324 (1½) DIRECTIONS IN GEOGRAPHY**

The course will briefly outline and discuss the historical development of geographical thinking and knowledge, but will concentrate mainly upon trends and controversies in geography in the 20th century. The course will enable students to relate their other courses to the multitude of facets that constitute the present discipline of geography. Areas covered will include: geography's relationships to other disciplines; the scope of geography; man's relationships to nature as a geographical theme; the ideographic versus nomothetic content of geography; practical application of geography; recent 'revolutions' in the discipline. (Prerequisites: six units of second year Geography courses, or permission of instructor).

D. Porteous S(3-0)

**GEOG 325 (1½) FIELD SURVEY TECHNIQUES**

An introduction to fundamental concepts of surveying and field work including the use of transits, stadia level, plane table, chain and compass survey, and other techniques; activities include application of survey and sampling techniques to actual problems of measuring landform, hydrologic, or vegetation features, together with methods of analysis and evaluation. (Students will be charged a laboratory fee.) (Prerequisite: Math 102)

M. Edgell, I. Norie FS(2-2)

**GEOG 423 (1½) ADVANCED CARTOGRAPHY**

The growth and evolution of cartography is traced from ancient civilizations to the present. Trends and technological transitions in map production, reproduction, surveying, and navigation are emphasized. Contemporary topics in cartographic research and the industry of cartography are discussed. Assignments include independent research and participation in a group project. (Prerequisite: 321, 322, and 323, or permission of the Department)

P. Keller F(2-2)

**GEOG 425 (1½) SURVEY METHODS AND ANALYSIS IN GEOGRAPHY**

This course will examine various approaches to research design and then focus on the statistical approach. The development of questionnaires and sample frames will be discussed, followed by preliminary analysis of

the research data using nonparametric statistical techniques. (Prerequisite: 321 or 300, or permission of Department)

M. Flaherty S(3-0)

**GEOG 426 (1½) ADVANCED QUANTITATIVE METHODS IN GEOGRAPHY**

This course will introduce students to the more advanced statistical and quantitative techniques commonly used in geographical research. Particular emphasis will be placed on the role of the techniques in empirical and policy oriented research questions. Included in the course will be the multivariate statistical techniques of regression and factor analysis, as well as linear and simple location/allocation problems. (Prerequisite: 321, 300 or 425, or permission of Department)

P. Keller F(3-0)

**GEOG 427 (1½) CARTOGRAPHIC PRODUCTION**

Map construction and reproduction techniques are emphasized in this course. Students are familiarized with darkroom procedures and common production methods such as inking, scribing, peel coating, color proofing systems, and screen tinting. (Open only to fourth year Geography major or honours students; enrollment limited to 15.) (Prerequisite: 323 or permission of the Department)

S(0-3)

**GEOG 428 (1½) AUTOMATED CARTOGRAPHY AND GEOGRAPHICAL INFORMATION SYSTEMS**

This course outlines the role of automation in cartographic design, production and reproduction. Hardware and software specific to cartography and geographical information systems (GIS) are introduced. GIS designs and applications are discussed in relation to spatial analysis and resource management. (Prerequisites: 321, 323, CSC 110 or 112 or 200, Math 100 or 102, or permission of the Department)

S(0-3)

**GEOG 490 (1½ or 3) DIRECTED STUDIES IN GEOGRAPHY**

In special cases, with the consent of the Department and the individual instructor concerned, a student may be permitted to pursue a course of directed studies. Courses of 1½ or 3 units may be arranged, but no student is permitted to take more than three units of directed studies. In order to qualify for a 490 course a student must have at least a 6.00 G.P.A. in the previous fifteen units of University work.

**GEOG 499 (3) HONOURS SEMINAR AND ESSAY**

It is recommended that honours students take the honours seminar in their third year. Honours students must register for the honours seminar and essay when admitted to the program. Students who register in their third year will receive a grade of INP until the essay is completed. The essay will be submitted at the end of the fourth year. (Grading: INP; letter grade)

Y(3-0)

**URBAN, ECONOMIC AND CULTURAL****GEOG 330 (1½) UNDERSTANDING CITIES**

A broad overview of issues in urban geography. The origin of cities, the spread of urbanization throughout the world, and the development of city systems are discussed. Cities of the urban industrial world, both Western and Communist, are compared with the cities of the Third World. Urban problems, including transportation, decentralization, spatial aspects of social justice, and new town planning are outlined. Alternative futures for cities are also considered. (May be taken only as an elective by students on a Geography program.) (Prerequisite: Third year standing. 101A and 101B are not prerequisites for this course.)

F(3-0)

**GEOG 341 (1½) INDUSTRIAL GEOGRAPHY**

An analytical examination of factors affecting location of manufacturing industries and the growth of manufacturing regions. Topics of discussions will include theories and models of industrial location; communist ideas of industrial location; measurement of industrial location and association; and consideration of industrial policies and planning in selected countries.

F(3-0)

**GEOG 342 (formerly 449) (1½) URBAN HISTORICAL GEOGRAPHY**

The aim of the course is to provide a comprehensive survey of the evolution of the city from its origins in the ancient world to its present form in the western world. The understanding of processes of growth and change is a major goal and this will be pursued generally in a chronological manner. The first half of the course will be concerned with urban origins, the classical city, the medieval city, and the mercantile and renaissance cities; and the second half with industrial age cities in Britain, United States and Canada, with emphasis on Canadian cities. (Prerequisite: 349 or permission)

F(3-0)

**GEOG 343 (1½) REGIONAL ANALYSIS**

An examination of socioeconomic systems from a spatial viewpoint. Major themes are spatial structures, shifts in location of activities, circulation systems, city/region relations, and regional economic development. A variety of conceptual models will be applied to the above topics. Assignments will involve outside reading and two or three short term projects. (*Prerequisites:* 201A and 201B, or 205A and 205B, or permission) F(3-0)

**GEOG 344 (1½) URBAN SYSTEMS SIMULATION**

Gaming procedures which simulate real world urban processes form the core of this course. By adopting the roles of developers, politicians, planners, public interest groups or other decision makers, participants gain an understanding of the complex interrelationships and interactions occurring within an urban system. The following topics are stressed: urban transportation: land use development; zoning; urban/rural relationships; pollution; poverty; politics and municipal finance. Participants will be given the opportunity to redesign the gaming procedures and also to relate specific gaming situations to contemporary planning problems in Canadian cities. (Enrollment limited to 20; preference given to students in related urban courses.) (*Prerequisite:* 349 or permission) NO(3-0)

**GEOG 345 (1½) GEOGRAPHY AND PLANNING OF TOURISM**

The course examines the growth of tourism, its effects on environment and life, and the challenge of planning and managing this large scale activity. Topics to be discussed include the elements of tourism, its spatial patterns and development in various parts of the world. The planning and management aspect will concentrate on such issues as its effects on towns, the countryside and coastal areas. P. Murphy F(3-0)

**GEOG 347A (formerly half of 347) (1½) GEOGRAPHY OF ECONOMIC AND CULTURAL CHANGE: DEVELOPED WORLD**

A systematic treatment of factors effecting change, and a description and evaluation of their impact on cultural landscapes. Topics will include growth, innovation, diffusion, communications, migration and urban/rural disparities. Attention will focus on the dynamics of change in the developed countries of Europe and North America. C. Wood F(3-0)

**GEOG 347B (formerly half of 347) (1½) A GEOGRAPHY OF THIRD WORLD DEVELOPMENT**

Spatial aspects of the processes of modernization and development in Latin America, Africa, and Asia (excluding the U.S.S.R.). Colonial and postcolonial developments are discussed in terms of economic, social, and political geography, and resulting changes in both physical and cultural landscapes. NO(3-0)

**GEOG 349 (1½) INTERNAL STRUCTURE OF CITIES**

This course explores the internal structure of major cities and the forces which create the city. Topics include the residential, commercial, and industrial structure of cities; problems of contemporary cities including housing and transportation; the planning of the urban environment. (*Prerequisites:* 101A and 101B or permission of instructor) C. Forward F(3-0)

**GEOG 378 (1½) ENVIRONMENTAL AESTHETICS**

This course derives from the traditional concern of both humanist and applied geographers with the appearance, meaning, and value of landscape. The nature of aesthetic satisfactions in natural, rural and built environments, varying in scale from a building to a region, are considered. Following discussion of current environmental aesthetic theory, the varying approaches of contemporary practitioners in humanistic and applied geography, architecture, and planning are investigated. Planning techniques for environmental aesthetic assessment are outlined, and the implications for managing environments are discussed. (NOTE: Students seeking a philosophical approach to aesthetics should consider PHIL 242.) S(3-0)

**GEOG 440 (1½) URBAN GEOGRAPHY OF CANADA**

Part of the course is focused on a study of the complete urban system as an introduction to a separate consideration of the cities in each of the five major regions of Canada. In the discussion of the national system topics will include population characteristics, economic base, functional structure and urban images. The distinctiveness of regional city systems will be explored, including case studies of individual cities. Special topics covered may vary from one region to another, such as the clothing

industry in Montreal or ethnic groups in Winnipeg. (*Prerequisite:* 349 or permission) C. Forward S(3-0)

**GEOG 442 (PACI 442) (1½) GEOGRAPHY OF CHINATOWNS AND CHINESE MIGRATION**

This seminar studies the urban overseas Chinese communities in the Pacific Rim countries. Major topics of discussion will include migration theory, concepts of culture conflict, assimilation and acculturation, urban ethnicity, home environment of Chinese emigrants, attitudes and policies of host society towards Chinese immigrants and imprints of Chinese culture on the urban landscape of the receiving country. Emphasis will be placed on the Chinese migration to Canada and the study of the urban problems of Canadian Chinatowns. NO(3-0)

**GEOG 443 (1½) GEOGRAPHY OF REGIONAL DEVELOPMENT**

The course is designed to examine policies and problems associated with regional development. The course will evaluate the changing spatial relationships between the location of resources and population. This will involve discussion of the 1) geographical limits of various political jurisdictions in federal states as opposed to unitary states and the powers vested in various levels of government to implement development plans and 2) problems of data availability on regional and subregional bases. Social and institutional obstacles to change will be discussed. Regional policies in Canada and the countries of Western Europe will be discussed and evaluated. (*Prerequisites:* 343 and ECON 201 and 202, or permission) C. Wood S(3-0)

**GEOG 444 (1½) URBAN TRANSPORTATION AND LAND USE PLANNING**

The problem of developing a satisfactory transportation system relative to the areal pattern of land use in an urban area is the major concern of this course. The functions of the various modes of transport and their effectiveness in the urban environment are investigated. Land use types are studied as generators of traffic in the city. An attempt is made to determine the volume and nature of traffic generated by different land uses. Consideration is given to the possibilities of drastically altering land use patterns of cities, as well as changing transport systems. (*Prerequisite:* 349 or permission) F(3-0)

**GEOG 445 (formerly 346) (1½) COMMUNITY DEVELOPMENT AND PLANNING IN CANADA**

The course is concerned with the development of communities in the Canadian urban system. It examines the planning problems and administration issues that have evolved in Canada's wide range of communities and cultures. The focus is on the manner in which spatial and technological developments have influenced the social and environmental balance of present communities. (*Prerequisite:* 349 or permission) P. Murphy F(3-0)

**GEOG 446 (1½) DEVELOPMENT AND PLANNING OF THE URBAN REGION**

The course examines the linkages that exist between current urban geography analysis and the planning problems of the metropolitan regions of the North American continent. The course attempts to demonstrate the contribution geography may make, as a social science, to the overall planning and development of such city regions. The aspects of the urban environment selected for study include such topics as migration and housing patterns, industrial and transportation considerations, and the influence of central government pressure and legislation. (*Prerequisite:* 349 or permission) S(3-0)

**GEOG 447 (PACI 447) (1½) URBAN PROBLEMS OF PACIFIC RIM DEVELOPING COUNTRIES**

The course examines the fundamental differences in urban organization between developed and developing countries, and studies the political, cultural and socioeconomic conditions under which cities in Pacific Rim developing countries are growing. (*Prerequisite:* 349 or permission) C.-Y. Lai S(3-0)

**GEOG 448 (1½ formerly 3) URBAN SOCIAL GEOGRAPHY AND PLANNING**

A behavioural approach to the study of man-environment systems in an urban context. With bases in cultural geography and environmental psychology, the course will investigate the spatial dynamics of urban behaviour in western societies, with special reference to social interaction, and perceptions, attitudes and learning within the urban system. Students should become aware of the contemporary urban social problems which

are involved in planning the metropolitan environment. (*Prerequisite:* 349 or permission)

D. Porteous F(3-0)

## RESOURCES AND PHYSICAL

### GEOG 350A (ES 316) (1½) GEOGRAPHY OF RESOURCE MANAGEMENT

An introduction to the geographic study of natural resources: their form, inherent characteristics, and external relations with the geography of the areas in which they are found. Attention will be paid to the way in which resources and their use contribute to the character of areas and the manner in which interrelated aspects of culture — technology, perception, economic and institutional elements — help determine the pattern of use and its areal variations.

W. Ross F(3-0)

### GEOG 350B (1½) APPLIED RESOURCE GEOGRAPHY

An analysis of contemporary problems and issues of resource management. Case studies will be used to examine such issues as common property exploitation, multiple use, area management and conflict resolution. Particular emphasis will be placed on North American examples. (*Prerequisite:* 350A or permission)

W. Ross S(3-0)

### GEOG 370 (1½) HYDROLOGY

A study of hydrology, focusing on the various factors that influence the distribution of water resources in time and space. Among the topics studied are: evaporation and transpiration; runoff and stream gauging; snow and ice surveying; flood prediction and droughts. A term project, generally involving field work, is required. This course provides the background in physical hydrology recommended for students registered for 371. (*Prerequisite:* 203A, 203B, or permission)

H. Foster F(2-2)

### GEOG 371 (1½) WATER RESOURCES MANAGEMENT

A study of water resources management in different parts of the world, examining the influence of various physical, economic, social, political, and technological factors. The alternative ways in which such problems as water scarcity, floods, and declining water quality are handled will be discussed. A number of major water development schemes will be examined in detail. Students will be expected to undertake a modest research project and report upon it. (*Prerequisite:* 370 or permission)

S(2-2)

### GEOG 372 (1½) CLIMATOLOGY

An investigation of the physical processes that determine the variation in climate and weather from place to place around the world. Emphasis will be on the process of mutual interaction between the earth's surface and the atmosphere, and the role of differing surface types in creating the climate above them.

S. Tuller F(2-2)

### GEOG 373 (1½) APPLIED CLIMATOLOGY

A study of the application of physical principles to practical problems in climatology and the reciprocal interaction between climate and man's activities. Discussion topics will include: urban effects on climate, air pollution, human bioclimatology, agricultural climatology, and methods of microclimatic modification.

S. Tuller S(2-2)

### GEOG 374 (1½) BIOGEOGRAPHY

This course provides an analysis of the organization of biotic systems. Origins, dispersals, evolution, and limiting physical, biotic and cultural factors as they relate to present day distribution patterns and ecological relationships will be considered. Particular attention will be paid to: the nature of ecological relationships; the landscape patterns resulting from these relations; the dynamic character of ecosystems; the impact of man upon ecological processes and ecosystem character. (*Prerequisite:* 203A, 203B, or permission)

M. Edgell F(2-2)

### GEOG 375 (1½) FOREST RESOURCE MANAGEMENT

An examination of the geographical and ecological parameters of forest systems, and the relationships of these parameters to actual and potential resource use. Major emphasis will be placed on the coastal forest resources of British Columbia, and comparisons drawn with Europe and United States examples. Topics, to be covered in both class and field work, will include forests as functioning ecological and management

units, historical development and current changes in management policy and possible trends in future resource policies. (*Prerequisite:* 374 or permission of Department)

M. Edgell S(2-2)

### GEOG 376 (1½) GEOMORPHOLOGY

An investigation of the genesis and distribution of landforms. Emphasis will be placed upon techniques used in the measurement of those processes which are of prime importance in the evolution of glacial, periglacial, temperate and tropical landforms. Marine, karstic and volcanic landforms will also be studied. The course will involve outside readings, field trips, and participation in a group research project. (*Prerequisite:* 203A, 203B, or GEOL 100 or permission)

H. Foster F(2-2)

### GEOG 377 (1½) APPLIED GEOMORPHOLOGY

A detailed examination of the social relevance of geomorphology, in which three areas receive emphasis. Terrain analysis involves the evaluation of landscapes for mineral resources, trafficability, urban and industrial site suitability and agricultural productivity potential. Terrain stability studies explore the problems involved in maintaining landscape equilibrium in the face of major engineering schemes and waste disposal. Special attention is also paid to risk from natural hazards, especially those of importance in western North America, such as earthquake, tsunamis, avalanches and volcanic eruptions. Outside readings, field trips and participation in a group research project are involved. (*Prerequisite:* 376 or permission)

H. Foster S(2-2)

### GEOG 450A (formerly half of 450) (1½) DECISION MAKING IN RESOURCES MANAGEMENT: THEORY

An advanced course in the geography of resources management and conservation. Its purposes are to determine the factors which appear to influence decision making in the resources field, and to examine the effects of different decisions upon the physical and human environments. It is devoted to a review of the various approaches to the analysis of resources management decisions and their applicability to a variety of situations. (*Prerequisite:* 350A, 350B, or permission)

F(3-0)

### GEOG 450B (formerly half of 450) (1½) DECISION MAKING IN RESOURCES MANAGEMENT: PRACTICAL APPLICATIONS

This course deals with a number of case studies, drawn from different parts of the world, applying theories and techniques developed in 450A, and comparing the impacts on the physical and human landscape. (*Prerequisite:* 450A)

S(3-0)

### GEOG 451 (1½) ADVANCED WATER RESOURCES MANAGEMENT

An examination of the theory and practice of contemporary water resources management. While the major focus will be on experience in North America, illustrations will also be drawn from other parts of the world. A primary interest will be in planning and policy making. (*Prerequisite:* 371)

S(3-0)

### GEOG 452 (1½) COASTAL RESOURCE ANALYSIS

The geographic study of the patterns, processes and problems involved in managing coastal zone resources. Emphasis will be placed on the coastal zone as a functional region, the jurisdictional aspects of management, the spatial processes apparent in the coastal zone and the origin of resource use problems. Consideration will be given to cases in coastal zone management from Canada, the United Kingdom and the United States, with particular focus on British Columbia. (*Prerequisite:* 350A, 350B, or permission of instructor)

S(3-0)

### GEOG 453 (1½) MARINE RESOURCE ANALYSIS

A geographic study of the territorial organization, use and management of marine resources. Topics to be investigated include the common property nature of the ocean areas, different concepts and principles of territorial organization of the sea, exploitation of ocean resources, potential uses of the ocean and frameworks for future management. (*Prerequisite:* 350A, 350B, or permission of instructor. BIOL 310 or 311 recommended)

S(3-0)

### GEOG 454 (1½) GEOGRAPHICAL DIMENSIONS OF ENERGY POLICY

An analysis of contemporary problems and issues in energy policy development. Particular attention will be paid to global variations in energy availability and requirements; transportation patterns, and environmental concerns.

H. Foster S(3-0)

**GEOG 459A (formerly half of 459) (1½) RECREATION RESOURCE ANALYSIS: CONCEPTS**

Introduction to concepts underlying recreational activity such as motivations, satisfactions, participation and demand, and the use of concepts such as multiple use, commons resources, substitutability, conflict resolution, threshold determination and externalities in understanding and planning the management of recreation resources; specific case studies are examined with special emphasis on Canadian and British Columbian examples. (*Prerequisite*: 350A, or permission of instructor)  
P. Dearden F(3-0)

**GEOG 459B (formerly half of 459) (1½) RECREATION RESOURCE ANALYSIS: EVALUATION, PLANNING AND MANAGEMENT**

An examination of the evaluation, planning and management of recreation resources at various scales and levels of use from high intensity day-use areas through to wilderness, tracing the evolution, current status and future directions of park systems; usually involves a three day field trip for which there will be some charge. (*Prerequisite*: 459A)  
P. Dearden NO(3-0)

**GEOG 471 (1½) SEMINAR IN PHYSICAL GEOGRAPHY**

The course offers the opportunity to undertake advanced work in biogeography, climatology, geomorphology and hydrology. One of these fields will be specified for the course each year. Emphasis is on learning through experience, and students will complete suitable research projects in close consultation with the faculty member. This course may be taken twice only and no more than once from the same professor. (NOTE: Credit may not be obtained for 471 and 470, 472, 474 or 476)

Topics:

## 471A Biogeography

This course will centre upon intensive research projects involving fieldwork, literature studies and seminar discussions in ecological or applied biogeography. Topics will depend upon class size and student interests, and projects may be completed individually or in groups. (*Prerequisite*: 374 or 375 or permission)

M. Edgell F(3-0)

471B Climatology NO(3-0)

471C Geomorphology S(3-0)

**REGIONAL**

Pacific Studies 200: Cultural Contact and Social Change in the Pacific Region, is recommended for students intending to take 347B, 364, 365, 447, 463A and 463B, 465.

**GEOG 361A (formerly half of 361) (1½) GEOGRAPHY OF CANADA: SYSTEMATIC APPROACH**

This course is concerned with the study of a number of topics relevant to the whole of Canada. The first half is devoted to the study of such topics as the environment and resource base, population and settlement, and the evolution of cities. The second half is more problem oriented, dealing with topics such as energy resources and development, foreign control and industrial policy, and preservation of agricultural land.  
C. Forward F(2-2)

**GEOG 361B (formerly half of 361) (1½) GEOGRAPHY OF CANADA: REGIONAL APPROACH**

The regional study of Canada is based chiefly on the macroregions of the Atlantic Provinces, Quebec, Ontario, the Territories, the Prairies and British Columbia. The elements that define regional character are examined, as well as the evolutionary process culminating in the present economic and social structure of each region. Regionalism and regional problems within these macroregions also are investigated. The course concludes with a consideration of the interrelationships between regions and the stresses that exist within the nation. (*Prerequisites*: None, but 361A is recommended)  
C. Forward S(2-2)

**GEOG 364 (1½) GEOGRAPHY OF TRADITIONAL CHINA**

The purpose of this course is to study the physical environment of China and the role of the Chinese people in moulding and changing the landscape over the past four thousand years. The subject matter will deal primarily with conditions pertaining to the Chinese earth and the Chinese people in the period up to 1949, and provide an essential basis for appreciation of the transformation of China since 1949.  
C.-Y. Lai F(3-0)

**GEOG 365 (1½) GEOGRAPHY OF MODERN CHINA**

The purpose of this course is to study the transformation of the Chinese landscape since 1949. Emphasis will be placed on the study of the resource base in different economic regions and the impact of the modern, state-directed economy upon settlement, agriculture, transportation and industrial growth. (*Prerequisite*: None, but 364 is recommended)  
C.-Y. Lai S(3-0)

**GEOG 463A (formerly half of 463) (1½) GEOGRAPHY OF MAINLAND SOUTHEAST ASIA**

A systematic geography of the mainland countries of Southeast Asia examining the physical and cultural landscapes, regional variations, and problems associated with modernization and underdevelopment, such as settlement, land reform, urbanization and political geography.  
M. Flaherty S(3-0)

**GEOG 463B (formerly half of 463) (1½) GEOGRAPHY OF INSULAR SOUTHEAST ASIA**

A systematic geography of the island countries of Southeast Asia examining the physical and cultural landscapes, regional variation and problems associated with modernization, and underdevelopment. Topics will include settlement, land reform, urbanization, and political geography.  
NO(3-0)

**GEOG 465 (3) GEOGRAPHY OF JAPAN**

A survey of the physical environment, cultural patterns and economy of Japan, which is intended to provide the background which will enable the student to assess Japan's role in the world today. Both traditional patterns and present day changes will be discussed.  
S.E. Tuller Y(3-0)

**GEOLOGY****GEOLOG 100A (formerly half of 100) (1½) EARTH MATERIALS AND PROCESSES AT THE EARTH'S SURFACE**

An introduction to the materials which make up the planet earth — focussing on minerals, rocks and fossils; how they occur — their sedimentary and tectonic structures, and the environments at the earth's surface where sediments and sedimentary rock are found.  
F(3-2)

**GEOLOG 100B (formerly half of 100) (1½) THE EARTH'S INTERNAL PROCESSES AND HISTORICAL GEOLOGY**

An introduction to the earth's internal processes — volcanism, seismic activity, plate tectonics, metamorphism — and their relationships to the nature and distribution of earth materials. The history of the earth, the rock record, the geological time scale and the geology of North America will be discussed. (*Prerequisite*: 100A)  
S(3-2)

**GEOLOG 201 (1½) STRATIGRAPHY**

An investigation of some aspects of the geology of sedimentary rocks. The topics discussed include: physical and chemical properties of sediments; sediment transport and accumulation; stratification; structures; practical applications of stratigraphy; and an overview of the stratigraphy of Western Canada. (*Prerequisite*: 100 or permission of the Department)  
E. Van der Flier-Keller F(2-2)

**GEOLOG 202 (1½) STRUCTURAL GEOLOGY**

The basic concepts of structural geology are introduced. The topics examined include: the physical controls, the analysis, the detection, and the geometric display of geologic structures. (*Prerequisite*: 100 or permission of the Department)  
S(2-3)

**GEOLOG 203 (1½) INTRODUCTION TO MINERALOGY**

A study of the physical, chemical and crystal properties of minerals. The classification of minerals and the recognition and identification of common rock-forming and economic minerals. The determination of refractive index. (*Prerequisites*: 100; 3 units of 100 level Chemistry; PHYS 102 or 103 or 3 units of PHYS 100, 110, 120, 125, 220)  
S(2-3)

**GEOLOG 204 (1½) INTRODUCTION TO PETROLOGY**

A study of the optical properties of minerals and their identification under the microscope. Thin section examination of rocks. The classification of igneous and metamorphic rocks. (*Prerequisites*: 100 and 203)  
S(2-3)

## GRADUATE COURSES

*All courses may not be offered in any one year.*

### **GEOG 500 (2) COLLOQUIUM AND FIELD WORK IN GEOGRAPHY**

Presentations from full time faculty members concerning issues in their fields of specialization and current research in these areas. Presentations followed by seminar discussion. Faculty presentations will be supplemented by guest lectures from prominent Geography researchers. Student presentations may also be required. Students must enrol for 2 terms.  
(Grading: INP, COM, N or F).

### **GEOG 522 (2) SEMINAR IN THE DESIGN AND CONDUCT OF RESEARCH**

This seminar will review the process of design and conduct of research. It will include an examination of steps involved in problem identification and hypothesis formulation, and some consideration of various unobtrusive data collection techniques. The course will conclude with the design of a research proposal.  
(Required core course)

### **GEOG 523 (2) SURVEY AND SAMPLING TECHNIQUES IN GEOGRAPHY**

The course describes and explains survey research techniques currently used in geography. The emphasis will be on the mechanics of these techniques, their advantages and disadvantages and limitations.  
(Required core course)

### **GEOG 524 (2) MATHEMATICAL ANALYSES OF SPATIAL SYSTEMS**

The emphasis is placed upon application of various statistical techniques to geographical problems rather than upon the mathematical bases of such techniques.

### **GEOG 526 (2) THE NATURE AND PHILOSOPHY OF GEOGRAPHY**

The history of geography up to the 20th century will be examined, but the bulk of the course is concerned with the radical changes in geographical philosophies, methodologies, and approaches which have occurred since 1950. The nature of geography will be considered in relation to other disciplines and interdisciplines. Recommended for graduates who wish to place their specific research goals in the general context of the geographical research frontier.

### **GEOG 542 (2) SEMINAR IN URBAN PROBLEMS**

A survey of the geographer's contribution to the understanding of contemporary urban problems. Seminars will be led by urban geography faculty.

### **GEOG 552 (2) SEMINAR IN RESOURCES MANAGEMENT PROBLEMS**

A seminar dealing with various problems encountered in resources management, including the collection and analysis of data, the organization of research, the formulation of plans and programs, and the analysis of economic and social aspects of resource development projects. Examples will be drawn from Canada and elsewhere. Seminars will be led by resource geography faculty.

### **GEOG 553 (2) RECREATION POLICY AND RESEARCH**

A course dealing with the formulation and implementation of recreation policy, and the identification of significant areas for research. Conducted as a seminar, it will include presentations from the instructors and outside speakers as well as students. Each student will be responsible for preparing a detailed proposal for a research topic.

### **GEOG 554 (2) ADVANCED TOPICS IN PARKS AND WILDERNESS MANAGEMENT**

The objective of this course is to pursue in depth critical and current management issues in parks and wilderness areas. Based on sound theo-

retical and conceptual constructs the course will entail investigation of the specific case studies. Organized largely as a seminar, the precise format will be determined by mutual agreement of class and instructor. A research paper will be required.

### **GEOG 555 (2) PROBLEMS IN THE MANAGEMENT OF COASTAL AND MARINE RESOURCES**

A seminar on the problems of coastal and marine resources with special reference to Canada. Topics to be investigated may include coastal resource conflicts, fishery resources.

### **GEOG 556 (2) SEMINAR IN ENVIRONMENTAL IMPACT ASSESSMENT**

A review of the philosophy, process and methods of environmental impact assessment. It will include specific discussions of the origins, approaches, techniques of measurement, and the political process of assessment. Economic, social, and various physical and environmental parameters will be taken into account. The course will conclude with the application of the various techniques to an actual case study. One or more field trips will be undertaken. It is probable that the course will be conducted as a joint enterprise with the Department of Biology.

### **GEOG 557 (2) FOREST RESOURCE MANAGEMENT: PROBLEMS AND POTENTIAL**

A seminar based on both student and guest speaker presentations together with field excursions that selectively examine ecological, social and economic factors related to the management of forest resources in British Columbia. Each student will prepare one major paper for critical discussion.

### **GEOG 560 (2) PROBLEMS IN APPLIED BEHAVIOURAL GEOGRAPHY**

Contemporary issues in behavioural geography, from microspace (e.g. personal space) to macrospace (e.g. cognitive, imagery of the city) are investigated for their potential as planning tools. An attempt is made to develop a logical paradigm for the interdisciplinary area which relates behavioural geography and urban design.

### **GEOG 561 (2) ISSUES IN TOURISM RESEARCH**

The course examines specific research areas in tourism where Geography can and is making a contribution to a better understanding of this phenomenon. A specific theme will be selected each year, the choice including marketing research, destination area development, environmental impacts. Students are expected to participate in the seminars and develop a research paper on one aspect of the selected theme of that year.

### **GEOG 570 (2) GEOGRAPHICAL ASPECTS OF REGIONAL PLANNING**

Contemporary approaches to geographic problems in regional planning. Speakers from three levels of government will be brought in to discuss problems and approaches. Readings in the theory of planning from the geographic viewpoint and presentation of a major paper will be required.

### **GEOG 590 (A-Z) (2) DIRECTED STUDIES IN GEOGRAPHY**

M.A. and M.Sc. (Special Arrangement) students may only take one 590 course as part of their minimum program requirements. If they wish to take additional 590 courses these can be added to their minimum course load. Individual titles will be assigned to each numbered section of the course arranged by supervisory committees.

### **GEOG 599 (credit to be determined, normally 15 units) M.A.**

**THESIS**

(Grading: INP, Com, N or F)

### **GEOG 699 (credit to be determined, normally 24 units) PH.D.**

**DISSERTATION**

(Grading: INP, Com, N or F)

## DEPARTMENT OF GERMANIC STUDIES

Peter G. Liddell, M.A. (Edin.), Ph.D. (Brit. Col.), Associate Professor and Chairman of the Department  
 Michael L. Hadley, C.D., B.A. (Brit. Col.), M.A. (Man.), Ph.D. (Queen's), Professor  
 Rodney T.K. Symington, B.A. (Leeds), Ph.D. (McGill), Professor  
 Walter E. Riedel, B.Ed., M.A. (Alta.), Ph.D. (McGill), Associate Professor

Angelika F. Arend, Staatsexamen (Köln), M.A. (Carleton), D. Phil. (Oxon.), Assistant Professor  
 Elke Herb, B.A., B.Ed. (Munich), M.A., Ph.D. (Calg.), Visiting Assistant Professor (1987-88)  
 Johannes Maczewski, Staatsexamen (Marburg), Ph.D. (McGill), Assistant Professor

## GENERAL, MAJOR AND HONOURS PROGRAMS

The Department provides three emphases in Germanic Studies which may be elected either independently or in concert:

- 1) German Language
- 2) German Literature and Cultural History
- 3) German Cultural Studies in English Translation

Students specializing in particular programs will find ample scope for complementing their German Studies in such recommended areas as English and Linguistics.

All students planning to take a concentration in a General program of Major or Honours in the Department must take 3 units of literature at the 200 level or higher in English or any language other than German.

Students wishing to take Third and Fourth Year courses to meet requirements for a B.A. degree in the General, Major or Honours program, must satisfy the Department that they have satisfactory standing in appropriate German courses at the 200 level or in German 149. Students wishing to enroll in the Honours Program will first obtain the approval of the Chairman of the Department.

An Honours program in the Department normally requires a total of 63 units over a four year period, including graduating essay (see German 499). First and Second Class Honours degrees may be awarded. A First Class degree requires a first class graduating average and at least a B+ in German 499. A Second Class degree requires a second class graduating average and at least a C+ in German 499.

A student who fails to meet departmental requirements for First Class standing in the Honours program but has a first class graduating average will be offered the choice between Second Class Honours and a First Class Major degree. A student who fails to meet departmental requirements for Second Class standing but has a second class graduating average will be offered a Second Class Major degree.

The Department may give permission for individual studies and directed studies to be taken under course numbers 434 and 499 only. No other course numbers are offered as individual studies or directed readings at any time. German 499 is specifically intended for Honours students; German 434 may be taken for Major and Honours; as a general rule, both of these are available to students with a grade point average of at least 6.50 in German. German 434 would only be approved to be given in the Spring and Summer if such a student required the course in order to graduate that year.

## PROGRAMS IN GERMAN

**General** — 100 or 140 (or equivalent); 200 and 204 (or equivalent); nine units of German courses chosen from 300 and those numbered 400 or above.

**Major** — 100 or 140 (or equivalent); 200 and 204 (or equivalent); 300, 420; ten and one half units of other German courses including at least one of 414, 418, 422.

**Honours** — 100 or 140 (or equivalent); 200 and 204 (or equivalent); 300, 420; at least one of 414, 418, 422; 499; at least twelve units of other German courses numbered 400 or above.

Students in the above programs may meet the requirements of 100 (140)-200 by completing 149.

For purposes of calculating major and honours, only three (3) units of 349(6) will count towards upper level courses.

## COURSES

Native speakers may not obtain credit for 100 or 149. A native speaker is defined in this context as a person who has spoken German since childhood and who has received sufficient instruction in German to be literate in German. The Department will administer placement tests to assign students with previous knowledge to the appropriate level.

Students with secondary school credit in German, and students with transfer credit from other postsecondary institutions, will be placed at an appropriate level.

Intermediate and advanced students will be expected to have a standard bilingual dictionary. The Department recommends Langenscheidt's or Cassell's.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### ELEMENTARY COURSES

#### GER 100 (3) BEGINNERS' GERMAN

This course is designed for students who have no previous knowledge of German and who wish to acquire a command of the spoken and written

language in preparation for more advanced work. The language laboratory will reinforce the learning of basic speech patterns and idioms, and will complement the active use of German in the classroom. Text: Moeller, Liedloff, *Deutsch heute* Y(3-1)

#### GER 149 (6) INTENSIVE GERMAN

For students with no previous knowledge of German or insufficient knowledge to enter 200, this course is designed to cover a basic two year study of the German language in one year (equivalent to 100 plus 200) and to provide a rapid and thorough grounding in how to read, write and speak German, with emphasis on making practical use of the language as early as possible. In addition, readings of short texts will be introduced at an early stage and films and slides will be shown to illustrate aspects of German-speaking countries and to serve as topics for conversation practice. (*Prerequisite*: None. Students with credit for 100 or 140, or equivalent knowledge, may not take this course for credit. Students not making satisfactory progress will be advised to transfer to 100.) Text: To be announced

M.L. Hadley

Y(5-2)

### INTERMEDIATE AND ADVANCED GERMAN

#### GER 200 (3) INTERMEDIATE GERMAN

This course aims at improving the student's practical mastery of the spoken and written language. Beginning at the level attained in first year German, its integrated approach to grammar review and contemporary texts focuses on the German speaking world. Classes consist of composition, translation and discussion. (Not open for credit to students who have credit for 149) (*Prerequisite*: 100)

J. Maczewski

Y(3-1)

#### GER 204 (3) SURVEY OF GERMAN CULTURE AND INTRODUCTION TO GERMAN LITERATURE

A general survey of the German cultural heritage through readings, films, music and a study of literary selections from the Middle Ages to the present. (Not open to students who have credit for 240, 260, 201 or 202.) Texts: Frisch, *Biedermann und die Brandstifter*; Ryder, McCormick, *Lebendige Literatur* and others to be announced (*Prerequisite*: 100 or 140 or equivalent; 200 is normally prerequisite to, or corequisite with, this course)

W.E. Riedel

(3-1)

#### GER 300 (3) ADVANCED COMPOSITION: STYLISTICS AND TRANSLATION: I

The aims of this course are to develop the student's mastery of the German language by intensive practice in the use of idiom in oral and written composition, translation, and style analysis, and to improve oral fluency by means of conversation classes. (*Prerequisite*: 200 or equivalent) (Not open to students with credit in 349)

A.F. Arend

Y(3-1)

#### GER 304 (3) A SURVEY OF GERMAN CULTURE (IN ENGLISH)

A survey of outstanding cultural trends against the background of Germany's past and present. Lectures will focus on traditional concepts of German culture, and major developments in religion, philosophy, folklore, literature, art, architecture and music in an attempt to give students a cultural perspective for viewing the German way of life. Other areas of discussion will include an assessment of current attitudes to Germany past and present. Representative texts will be read and discussed in English. (Knowledge of German is not required. May be chosen as an elective by students of German with Departmental permission)

NO(3-0)

#### GER 310 (3) GERMAN LITERATURE IN ENGLISH TRANSLATION

A study of major authors from the 18th Century to the present day. (*Prerequisite*: First year English or equivalent. This course is intended as an elective for students in any faculty. Knowledge of German is not required. Open to Major and Honours students in German by permission, as an elective only) Texts: Goethe, *Faust*; Spender (ed.), *Great German Short Stories*; Büchner, *Danton's Death*, *Woyzeck*; Mann, *Tonio Kröger*; Kafka, *The Metamorphosis*; Hesse, *Steppenwolf*; Brecht, *The Life of Galileo*; Dürrenmatt, *The Visit*; Weiss, *Marat/Sade*; Grass, *Cat and Mouse*.

NO(3-0)

#### GER 349 (6) INTERMEDIATE INTENSIVE GERMAN

For students with first year German or equivalent knowledge, this course is designed to cover a two year study of the language in one year (equivalent to 200 plus 300). With the aim of achieving a high level of proficiency in reading, writing and speaking German, and of accelerating entry into the Department's 400 level courses, students will review gram-

mar through intensive practice in composition, translation and oral presentations. Contemporary texts and other media (e.g. films) will be introduced at an early stage to develop skills in using and analysing idiomatic German. (Prerequisite: 100 or Departmental permission) (Not open to students with 149, 200, or 300) NO(5-2)

### GER 390 (3) GERMAN READING COURSE

Rapid survey of grammar, reading of general and scientific articles, designed to meet the needs of students who have no knowledge of German, but want to gain reading comprehension in a special field. (Limited normally to students in third or fourth year or in graduate studies.) (Credit cannot be granted both for 100 or 140 and 390.) Texts: H. Jannach, *German for Reading Knowledge* P.G. Liddell Y(3-0)

### GER 400 (3) ADVANCED COMPOSITION, STYLISTICS AND TRANSLATION: II

A continuation and reinforcement of 300 through oral presentations, composition, analysis of texts, translation, *Übersetzungskritik* and conversation based on selected texts, topics and the newspaper "Die Zeit". (Prerequisite: 300) J. Maczewski Y(3-0)

### GER 403 (1½) EVOLUTION OF THE GERMAN LANGUAGE

A survey of the evolution of German from the Dark Ages, through the religious and chivalric influences of the Middle Ages, to the impact of trade, technology and politics of today. The course will study the effects of developments such as: the printing press; Luther's Bible translation; the influence of French and English; and the manipulation of German for propagandistic purposes (e.g., under National Socialist and Communist regimes). (Prerequisite: 200, LING 100, or permission of instructor) P.G. Liddell S(3-0)

### GER 405 (1½) THE NOVELLE

As the most "dramatic" of the shorter narrative forms, the *Novelle* gave rise in the 19th century to many attempts to define its characteristic form and its emphasis on intrigue, horror, love and the apparently inexplicable aspects of life. Against this background, representative *Novellen* from Goethe to the present day will be studied and compared to other short narrative prose forms, such as the *Märchen*, *Erzählung*, and *Kurzgeschichte*. A.F. Arend F(3-0)

### GER 406 (1½) GERMAN DRAMA AND THEATRE

A study of the development of the German drama and its relationship to the German theatre from the 18th century (e.g. Lessing) to the present day (e.g. Brecht). Representative texts will be studied, with the aim of enabling the student to understand various dramatic forms. NO(3-0)

### GER 408 (1½) POETRY

German has long been considered an eminently poetic language because of its rich vocabulary, its flexibility in forming new combinations, its ability to express a wide range of emotion and thought through simple language, and its rhetorical strength. This course will introduce the student to a variety of poems from different periods and writers, and will permit students to choose a particular poet for special study. The primary concern of the course is teaching how to read German poetry for pleasure and understanding. NO(3-0)

### GER 411 (1½) MEDIEVAL GERMAN LITERATURE

An introduction to chivalric literature and civilization through the study of writers and their works, mainly from the first *Blütezeit* in German literature (1170-1250); early *Minnesang*, Walther von der Vogelweide, *Nibelungenlied*, Hartmann von Aue, Wolfram von Eschenbach, and others. The course will also provide a basic introduction to the Middle High German language through study of the original texts. A.F. Arend S(3-0)

### GER 412 (1½) GERMAN LITERATURE AND CULTURE OF THE 17TH CENTURY

This course will focus on the literature of the Baroque period (ca 1600 to 1700). It will examine the social and cultural development of the German speaking areas of Europe, evaluating their contribution to 17th century culture within the European context. The emergence of truly individual and 'national' cultures will be shown by selected readings of poetry, drama, and prose. M.L. Hadley S(3-0)

### GER 414 (1½) ENLIGHTENMENT

Enlightenment was a 17th to 18th century European phenomenon of broad cultural significance whose central tenet was trust in the ability of human Reason to provide man with ultimate knowledge in all areas of endeavour. Literature in all its forms (essay, poetry, novel, drama) became the vehicle for a new optimism, which was encouraged by the view that man should "dare to know" all things. This course studies some of the major German contributions to rationalism by selectively examining such writers as Albrecht v. Haller, Lessing, Klopstock and Wieland. Texts: Bahr (ed.), *Was ist Aufklärung* (Reclam 9714); Albrecht v. Haller, *Die Alpen* (Reclam 8963/64); Lessing, *Die Erziehung des Menschengeschlechts* (Reclam 8963) and *Nathan der Weise* (Reclam 3); Klopstock, *Gedichte* (Fischer Bucherei 1066); Wieland, *Der Prozess um des Esels Schatten* (Clarendon German Series) NO(3-0)

### GER 416 (1½) LITERATURE OF THE STORM AND STRESS

A study of one of the briefest, yet most momentous revolutionary periods in the history of German literature (1770-1790) through reading, interpretation, and critical analysis of some of the early works of Goethe and Schiller and their contemporaries. J. Maczewski F(3-0)

### GER 418 (1½) CLASSICISM

The literary period commonly described as German Classicism spans, in its broadest outlines, the years 1750-1810. More particularly, it describes that elevated classical idealism represented in the works of Goethe, Schiller and Hölderlin written between 1786 (Goethe's journey to Italy) and 1805 (Schiller's death). Against the background of classical antiquity, this course examines such major themes as the tragedy of the individual in political society, freedom and self determination, and the search for human values. M.L. Hadley F(3-0)

### GER 420 (1½) FAUST

Goethe's *Faust*, commonly regarded as the greatest single work in German literature, provides the student with a special challenge in its panoramic treatment of key themes found both in Germany's centuries-long literary tradition, and in the works of Goethe. Here questions concerning the nature of knowledge and morality, faith and reason, myth and reality are presented with both lyrical and symbolic breadth. Against the background of the Faust-myth and its traditions this course focuses on Goethe's achievement through detailed study of selected sections of Parts I and II of his work. Text: J.W. von Goethe, *Faust*, (Goldmann Klassiker 7517) J. Maczewski S(3-0)

### GER 422 (1½) GERMAN ROMANTICISM

The beginnings and principal achievements of this movement coincided with the period of Classicism. As an Idealistic movement, however, it emphasized individual sentiments, ideas and moods, and fostered a renewed German national feeling. Starting from a well defined philosophical basis, writers explored in poetry and prose new realms of the imagination. This course is a study of Romantic myth, fantasy, fairytale, and ghost story. Some attention will be given to art and music. NO(3-0)

### GER 424 (1½) 19TH CENTURY GERMAN AUTHORS

Emphasizing drama in Germany and Austria, the course examines the major changes in 19th century German literature against the background of the great social and political upheavals of the period. In surveying the work of writers from Kleist and Grillparzer, through Büchner, Heine and Heibel, to Fontane and Hauptmann, the course will pursue such topics as the struggle for an ideal vision in an increasingly materialistic world; comedy and social drama; *Biedermeier* conversation and the young liberal writers; the effects of industrialization and of Darwin on literature; Realism as a reflection of, or refuge from, a harsher reality. NO(3-0)

### GER 426 (1½) MODERN GERMAN LITERATURE: I

A study of German literature in the context of Germany's political and social transformation from about 1900 to World War I and the Weimar Republic. Representative literary texts from Naturalism will be examined with the thematic focus on the search for the "New Man." Texts: Hauptmann, *Vor Sonnenaufgang*, *Die Weber*; Wedekind, *Frühlingswachen*; Hofmannsthal, *Tor und Tod*, *Jedermann*; Georg Kaiser, *Von morgens bis mitternachts*, *Die Bürger von Calais*; Brecht, *Die Dreigroschenoper*; Zuckmayer, *Der Hauptmann von Köpenick*; and selections from the poetry of Rilke, George, Hofmannsthal and of Expressionism R.T.K. Symington F(3-0)

**GER 428 (1½) MODERN GERMAN LITERATURE: II**

A study of selected literary works by such major writers as Kafka, Hesse, Thomas Mann, and Brecht against the background of changing social, political and intellectual conditions in Germany, from the Weimar Republic to the end of the Third Reich. Texts: Kafka, *Die Verwandlung* and other selections; Hesse, *Der Steppenwolf*; Thomas Mann, *Tonio Kröger*, *Der Tod in Venedig*; Brecht, *Mutter Courage*, *Der gute Mensch von Sezuan*

NO(3-0)

**GER 431 (1½) CONTEMPORARY GERMAN LITERATURE**

A study of selected works of West German, Austrian and Swiss writers since 1945. Within the context of political, social and cultural developments, selections from the following authors will be studied: Borchert, Böll, Grass, Weiss, Lenz, Handke, Frisch, Dürrenmatt. Texts: Borchert, *Draussen vor der Tür*; Zuckmayer, *Des Teufels General*; Hochwälder, *Das heilige Experiment*; Dürrenmatt, *Der Besuch der alten Dame*, *Die Physiker*; Frisch, *Andorra*, *Biedermann und die Brandstifter*; Weiss, *Marat/Sade*; Böll, *Katharina Blum* and others

W. Riedel

F(3-0)

**GER 432 (1½) LANGUAGE, LITERATURE AND THOUGHT OF EAST GERMANY**

Since the creation of East Germany as the German Democratic Republic, it has established a distinctive literary and linguistic domain. This course will discuss and analyze major works of literature and other art forms created after 1949 in the light of socialist aesthetics from Marx to the present. Topics will include: Soviet Ideology and East German Culture; Politics and Art; Dissidents and Conformists; East German Literature and the West.

NO(3-0)

**GER 433 (1½) THE GERMAN POST WORLD WAR II NOVEL AND FILM (In English)**

A study of selected major novels since 1945 and their film adaptations. The novels will be examined as works of literature, as adaptations to film, and as social documents. Students of German will be encouraged to read passages in the original.

R.T.K. Symington

F(3-0)

**GER 434A (1½) SPECIAL TOPICS**

Designed for Major and Honours students, this course may be offered either as a reading course, a tutorial, or a seminar as warranted. Students wishing to register for this course must consult with the Chairman. This course may be taken more than once in different topics, with permission of the Department. This year: Brecht, selected works.

W. Riedel

S(3-0)

**GER 434B (3) SPECIAL TOPICS**

Designed for Major and Honours students, this course may be offered either as a reading course, a tutorial, or a seminar as warranted. Students wishing to register for this course must consult with the Chairman. This course may be taken more than once in different topics, with permission of the Department.

NO(3-0)

**GER 499 (3) HONOURS TUTORIAL AND GRADUATING ESSAY**

This course will be conducted either as an individual tutorial or seminar as demand warrants. Its purpose is to help the student develop critical approaches to specialized materials at an advanced level, and to assist in preparation of a scholarly essay on an assigned topic. The essay must conform to acceptable standards of style and format, and be submitted before the end of second term classes. An oral examination covering the topic of the essay will normally be given.

NO(3-0)

## DEPARTMENT OF HISPANIC AND ITALIAN STUDIES

Gregory P. Andrachuk, B.A., M.A., Ph.D. (Tor.), Associate Professor (Hispanic Studies) and Chairman of the Department

Lloyd H. Howard, B.A. (Brit. Col.), M.A., Ph.D. (Johns Hopkins), Assistant Professor (Italian)

Caroline Monahan, B.A., M.A. (Brit. Col.), Ph.D. (London), Assistant Professor (Hispanic Studies)

Daniel Chamberlain, B.A. (Mexico), M.A., Ph.D. (Tor.), Visiting Assistant Professor (1987-88)

Elena Rossi, B.A. (Vassar), M.A., Ph.D., (Tor.), Assistant Professor

### GENERAL, MAJOR AND HONOURS PROGRAMS IN HISPANIC STUDIES

Students wishing to take courses in Hispanic Studies at the Third and Fourth Year levels are reminded that they must have the prerequisites of the first two years including 150 or 250, and 260. Exceptions may be made with the permission of the Department.

Students wishing to take Third and Fourth Year courses to meet requirements for a B.A. degree on the General, Major or Honours Program, must satisfy the Department that they have satisfactory standing in 150 or 250, and 260. 250 should be taken in the Second Year (unless the student has credit in 150) and 350 in the Third Year. Students doing a General or Major in Hispanic Studies may take 260 in either the Second or Third Year.

Honours students' graduation standing is based on their graduating average.

Students specializing in Hispanic Studies (including Honours), will find that they have sufficient electives to enable them to concentrate in a second field — for example, Italian or another language, Classics, English, History, Linguistics. A wise selection of courses is particularly important to those who may wish to enter graduate school, teaching, library work, government service, etc. The Department Chairman will be happy to assist students with their selection of courses.

### PROGRAMS IN HISPANIC STUDIES

**General** — First Year: 100 or 150\*; Second Year: 250 and 260; Third and Fourth Years: 350 and six additional units of upper level Hispanic courses, selected with the approval of the Department.

**Major** — First Year: 100 or 150\*; Second Year: 250 and 260; Third and Fourth Years: Spanish 350 and twelve additional units of upper level Hispanic courses, selected with the approval of the Department.

**Honours** — First Year: 100 or 150\*; Second Year: 250 and 260; Third and Fourth Years: 350, 450, 499 and at least ten and one half units of upper level Hispanic courses selected with the approval of the Department.

\*Students with credit in 150 must take 350 in their second year.

### GENERAL PROGRAM IN ITALIAN STUDIES

First Year: 100; Second Year: 200; Third and Fourth Years: 350 and 7½ additional units of upper level Italian courses. Up to 3 units may be substituted from the supporting course list below. Students wishing to combine an Italian Studies Minor with a Major or Honours program in the Faculty of Arts and Science or the Faculty of Fine Arts may not select a supporting course from that program.

#### SUPPORTING COURSE LIST:

CLAS 340 (3) Roman History

HA 341 (1½) The early and high Renaissance

HA 420 (1½) Special Studies in Medieval Art (With the approval of the Department only)

HA 440 (1½) Italian Renaissance Art

### COURSES

Students should consult the Department concerning courses offered in a particular year.

#### Advice to students who speak Spanish

Students who have spoken Spanish since childhood and who have received sufficient instruction in Spanish to be literate in Spanish may not obtain credit for 100, 150, 200 or 250. They will normally begin Hispanic Studies with 260 and/or 350. They may take 250 only with special permission.

#### Advice to students who speak Italian

Students who have spoken standard Italian since childhood and who have received sufficient instruction in Italian to be literate in Italian may not obtain credit for Italian 100 or 200. They may take any Italian course at the 300 or 400 level.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### SPANISH

#### SPAN 100 (3) BEGINNERS' SPANISH

Emphasis will be placed on the acquisition of the basic skills of pronunci-

ation, reading, writing and conversation. Attention will be paid to essential points of grammar. Y(3-1)

**SPAN 150 (6) INTENSIVE SPANISH**

For students with no previous knowledge of Spanish, or insufficient knowledge to enter 250. This course covers a basic two year study of the language and emphasizes the rapid acquisition of reading, writing and speaking skills. (Prerequisite: None) (Not open to students with credit in 100) NO(5-2)

**SPAN 200 (formerly 240) (3) INTERMEDIATE SPANISH**

A review of the fundamentals of the Spanish language, designed to reinforce and develop the student's speaking skills, comprehension and writing ability; readings will be of a topical nature; one hour a week will be devoted to conversation. (NOTE: Students who intend to do major or honours work in Hispanic Studies should take 150 or 250, and 260) Y(4-0)

**SPAN 250 (formerly 290) (3) REVIEW OF GRAMMAR AND CONVERSATION**

Intensive review of grammatical structures, concentrating on the acquisition of composition and translation skills; readings will be taken from significant Spanish and Spanish American authors; one hour a week will be devoted to conversation. (NOTE: Students who intend to do major or honours work in Hispanic Studies should take this course in the Second year. May also be taken as an elective) (Not open to students with credit in 150) Y(4-0)

**SPAN 260 (3) INTRODUCTION TO THE LITERATURE OF SPAIN AND SPANISH AMERICA**

A study of major authors of Spain and Spanish America in the genres of narrative, drama, and poetry. The student will be instructed in the techniques of literary criticism and discrimination. (For students who intend to do major or honours work in Hispanic Studies. May also be taken as an elective) Y(4-0)

**SPAN 306 (1½) SPANISH CULTURE AND CIVILIZATION (IN ENGLISH)**

An introduction to the artistic, intellectual, social and political history of Spain from pre-Roman times to the 20th century, using patterns and events to illustrate the evolution of Spanish attitudes and thought; specific reference will be made to Muslim Spain, the exploration and conquest of the New World, the loss of Spain's overseas empire, and the Civil War. (Knowledge of Spanish not required.) S(3-0)

**SPAN 307 (1½) LATIN AMERICAN CULTURE AND CIVILIZATION (In English)**

An introduction to the artistic, intellectual, social and political history of Latin America from pre-Columbian times to the present; particular attention will be paid to the indigenous cultures, the exploration and conquest and the years which led to independence (1800-1825). Contemporary political trends will be analyzed, drawing examples from the situation in Central America, the Cuban Revolution, the dictatorships in Chile and Argentina, etc. Contemporary literary and intellectual trends will be viewed through such major figures as Gabriel García Márquez, Pablo Neruda, and Jorge Luis Borges. (Knowledge of Spanish not required.) NO(3-0)

**SPAN 350 (formerly 302) (3) ADVANCED COMPOSITION, TRANSLATION AND STYLISTICS: I**

This course concentrates on advancing the student's communication skills. Emphasis will be placed on the mastery of spoken Spanish, translation, composition and readings. Y(4-0)

**SPAN 450 (formerly 420) (3) ADVANCED COMPOSITION, TRANSLATION AND STYLISTICS: II**

The goal of this course is to develop the student's mastery of Spanish by enhancing reading, writing and communication skills. Included will be intensive practice in composition and translation, together with an introduction to style analysis through discussion of selected texts. (Prerequisite: 302 or 350) Y(3-0)

**SPAN 470A (formerly half of 406; 406A) (1½) EARLY MEDIEVAL LITERATURE (1100-1350)**

A study of Spanish literature covering the turbulent formative period of Spain as a nation, beginning with the *Poema de Mio Cid*, the epic of the warrior-hero, and ending with the ribald *Libro de buen amor*, by the Archpriest of Hita. NO(3-0)

**SPAN 470B (formerly half of 406; 406B) (1½) LATE MEDIEVAL LITERATURE (1350-1500)**

A study of the major works of the late Middle Ages in Spain, dealing with aspects of Courtly Love, anti- and profeminism, and "immorality", beginning with the *Corbacho* by the Archpriest of Talavera, and ending with the story of the Spanish bawd, *La Celestina*. NO(3-0)

**SPAN 472 (formerly 402) (1½) CERVANTES' DON QUIXOTE**

A study of *Don Quijote* in the context of Cervantes' life and times. F(3-0)

**SPAN 474A (formerly half of 413) (1½) EARLY GOLDEN AGE DRAMA**

A study of the development of Spanish drama from the middle of the 16th Century to mid 1620's. Emphasis will be placed on the works of Lope de Vega and his followers. NO(3-0)

**SPAN 474B (formerly half of 413) (1½) LATE GOLDEN AGE DRAMA**

A study of the development of Spanish drama from the mid 1620's to the end of the century. Emphasis will be placed on the works of Calderón de la Barca and his followers. NO(3-0)

**SPAN 475A (formerly 417) (1½) POETRY OF THE GOLDEN AGE**

A study of the poetry of the Golden Age in Spain, ranging from the pastoral to the satirical; particular emphasis will be placed on the works of Herrera, Garcilaso de la Vega, Quevedo and Góngora. NO(3-0)

**SPAN 475B (formerly 418) (1½) MYSTICISM IN THE 16TH CENTURY**

A study of the search for union with the Eternal as expressed in the writings of the Spanish mystics, particularly St. Teresa of Avila and St. John of the Cross. S(3-0)

**SPAN 476A (formerly 410) (1½) SPANISH ROMANTICISM**

The development of Spanish Romanticism from its origins to Bécquer, with particular emphasis on lyric poetry and drama. The aesthetic and ideological characteristics of the movement will be studied in the works of major authors. NO(3-0)

**SPAN 476B (formerly 400) (1½, formerly 3) THE SPANISH REALIST NOVEL OF THE 19TH CENTURY**

The development of Spanish realism from its origins in *costumbrismo* to naturalism; selected works of the major authors will be studied in the context of contemporary trends in other countries. F(3-0)

**SPAN 476C (formerly 401) (1½) THE GENERATION OF 1898**

The ideological and aesthetic response of an important group of writers to the social and intellectual problems of turn of the century Spain; selected works of the major authors will be studied, with special emphasis on their fiction. NO(3-0)

**SPAN 478A (formerly 411) (1½) THE 20TH CENTURY NOVEL AFTER THE CIVIL WAR**

A study of the main currents of the modern novel in Spain, with special emphasis on individual responses to the Civil War of 1936-39 and on the development of the novel as a vehicle for social criticism. Recent trends will be examined in the light of the continuing search for new values. NO(3-0)

**SPAN 478B (formerly 412) (1½) 20TH CENTURY DRAMA AND POETRY**

A study of the drama and poetry of modern Spain, covering the works of such writers as Juan Ramón Jiménez, García Lorca, Pedro Salinas and Alfonso Sastre. S(3-0)

**SPAN 480A (formerly 414) (1½) LITERATURE OF LATIN AMERICA (1492-1880)**

A study of the literature and literary trends of Latin America from 1492 to c. 1880. Special emphasis will be placed on Romanticism and Realism. NO(3-0)

**SPAN 480B (formerly 416) (1½) LATIN AMERICAN POETRY AND DRAMA SINCE 1880**

A study of representative works in the genres of poetry and drama from 1880 to the present, with emphasis on writers of international stature such as Gabriela Mistral and Pablo Neruda. NO(3-0)

**SPAN 480C (formerly half of 415) (1½) 20TH CENTURY LATIN AMERICAN FICTION: I**

A study of representative novels and short stories of prominent authors. Emphasis will be given to fiction of the first half of the 20th century, including the "revolutionary" novel. NO(3-0)

**SPAN 480D (formerly half of 415) (1½) 20TH CENTURY LATIN AMERICAN FICTION: II**

A study of recent works by authors of international calibre such as García Márquez, Cortázar, and Fuentes. S(3-0)

**SPAN 490A (formerly 425) (1½) HISTORY OF THE SPANISH LANGUAGE**

A study of the development of the Spanish language from its origins in Vulgar Latin to its stabilization in Cervantes' time. (Prerequisite: 150, 250 or 290) F(3-0)

**SPAN 490B (formerly 426) (1½) TRANSLATION THEORY AND PRACTICE**

A review of basic linguistic and cultural patterns and the problems of translation: emphasis will be laid on the acquisition of practical experience in translating material drawn from a large variety of fields including advertising, business, literature, politics, law, social work and the sciences. NO(3-0)

**SPAN 495 (formerly 430) (1½ or 3) DIRECTED READING COURSE**

For Honours and Major students. This course may not be repeated for credit.

**SPAN 499 (1½) HONOURS GRADUATING ESSAY**

Honours students will write a graduating essay of 7,500 - 10,000 words, in Spanish and on an approved topic, under the direction of a member of the Department. The essay must conform to acceptable standards of style and format, and be submitted before the end of Second Term classes. An oral examination, in Spanish, covering the topic of the essay will normally be given.

**ITALIAN****ITAL 100 (3) FIRST YEAR ITALIAN**

Emphasis will be placed on the acquisition of the basic skills of pronunciation, reading, writing, and conversation. Attention will be paid to essential points of grammar. Y(3-1)

**ITAL 200 (3) SECOND YEAR ITALIAN**

A review of the fundamentals of the Italian language, designed to reinforce and develop the student's speaking skills, comprehension, and writing ability; there will be a particular focus on important finer points of grammar and translation. Readings are taken from modern Italian authors. One hour a week will be entirely devoted to conversation. Y(4-0)

**ITAL 350 (formerly 310) (1½) ADVANCED GRAMMAR AND TRANSLATION**

Conducted entirely in Italian, this course is designed to increase oral proficiency, and to aid written expression through grammatical analysis, translation, and composition. (Not open to students with credit in 302) F(3-0)

**ITAL 370 (1½) STUDIES IN ITALIAN LITERATURE**

Not more than one of the following will be offered each year:  
370B Selected Authors before the 20th Century (May be taken more than once depending on course content to a maximum of 3 units) NO(3-0)  
370C (formerly 311) Selected Authors of the 20th Century (May be taken more than once depending on course content to a maximum of 3 units) S(3-0)  
370D The Italian Drama NO(3-0)

**ITAL 470 (formerly 403)(1½, formerly 3) DANTE'S DIVINE COMEDY (In English)**

A study of all three parts of the *Divine Comedy*: the *Inferno*, the *Purgatorio*, and the *Paradiso*, and their relationship to Courtly Love, mythology, theology, and medieval thought in general. (Prerequisite: Second year standing) NO(3-0)

**ITAL 472 (1½) PETRARCH AND BOCCACCIO (in English)**

A study of Petrarch's *Canzoniere* and Boccaccio's *Decameron*, and their relationship to the changing world of the late Middle Ages and their anticipation of the Renaissance and Humanism. (Prerequisite: Second year standing) NO(3-0)

**DEPARTMENT OF HISTORY****GRADUATE PROGRAM**

For information on studies leading to the M.A. degree, see page 225, for graduate courses, see page 98.

**UNDERGRADUATE PROGRAMS**

The Department offers undergraduate course work at two levels: introductory courses at the 100-200 level, open to first and second year students; and advanced courses at the 300-400 level, open to students in both third and fourth years. Students are strongly advised to complete introductory courses in a given area before undertaking advanced courses in the same area. Students may not enroll in introductory courses after completing an advanced course in the same area; students may not enroll concurrently in introductory and advanced courses in the same area without written permission from the instructor in the advanced course. Please note that enrollment in seminars is limited and that the consent of the instructor is required for registration. In some instances, seminars in the first term may be offered again in the second if there is sufficient demand.

All history courses require substantial written and reading assignments. Information about textbooks in all courses is available from the bookstore.

**GENERAL**

The General Program consists of any 9 units of history courses numbered 300 and above in the third and fourth years. Students entering the General Program should normally complete 6 units of introductory history courses in the first and second years.

G.R. Ian MacPherson, B.A. (Assumption U. of Windsor), M.A., Ph.D. (W. Ont.), Professor and Chairman of the Department  
Ralph C. Croizier, B.A. (Brit. Col.), M.A. (Wash.), Ph.D. (Calif., Berkeley), Professor  
Brian W. Dippie, B.A. (Alta.), M.A. (Wyo.), Ph.D. (Texas), Professor  
Sydney W. Jackman, B.S., M.A. (Wash.), A.M., Ph.D. (Harvard), F.S.A., F.R. Hist.S., Professor  
Angus G. McLaren, B.A. (Brit. Col.), M.A., Ph.D. (Harvard), Professor  
Peter A. Baskerville, B.A. (Tor.), M.A., Ph.D. (Queen's), Associate Professor  
James E. Hendrickson, B.A. (Sask.), B.Ed. (Alta.), M.A., Ph.D. (Ore.), Associate Professor  
John Money, B.A., M.A., Ph.D. (Cantab.), Associate Professor  
Patricia E. Roy, B.A. (Brit. Col.), M.A. (Tor.), Ph.D. (Brit. Col.), Associate Professor  
Eric W. Sager, B.A., Ph.D. (Brit. Col.), Associate Professor  
Donald L. Senese, A.B., Ph.D. (Harvard), Associate Professor  
E. Patricia Tsurumi, B.A. (Brit. Col.), A.M., Ph.D. (Harvard), Associate Professor  
Kenneth S. Coates, B.A. (Brit. Col.), M.A. (Man.), Ph.D. (Brit. Col.), Assistant Professor  
Elizabeth L. Ewan, B.A. (Queen's), Ph.D. (Edin.), Assistant Professor  
Robert J. McCue, B.A., B.Ed. (Alta.), M.A., Ph.D. (Brigham Young), Assistant Professor  
Thomas J. Saunders, B.A. (York), M.A., Ph.D. (Tor.), Assistant Professor  
Phyllis M. Senese, B.A. (Tor.), M.A. (Carleton), Ph.D. (York), Assistant Professor  
Wesley T. Wooley, A.B. (Ill.), A.M., Ph.D. (Chicago), Assistant Professor

**MAJOR**

To be admitted to the Major Program, a student should have a C average in 6 units of introductory history courses. In his third and fourth years, the student must take 15 units in history courses numbered 300 and above. Of these 15 units, a minimum of 6 and a maximum of 12 units should be selected from one area of interest. In addition, 9 units of nonhistory courses must be selected in consultation with the department adviser to Majors. Students interested in majoring in history are advised to consult the Majors Adviser in their first year if possible. Majors must have their third and fourth year programs approved by the Majors Adviser.

For a Major in history, a maximum of 3 units taken from Classical Studies 330, 340, 480A and 480C may be accepted in lieu of a course in European history.

**HONOURS**

In the Honours Program, students have the opportunity to study history more independently and intensively than is normally possible in the Major and General Program. Through small seminars, directed readings, and individual instruction in writing and research, the Honours Program encourages students to think critically and to deepen their understanding of both the content and craft of history. While the primary intent of the Honours Program is to help any interested and talented student of history achieve an excellent education in the liberal arts, the Program should be especially useful for students contemplating graduate work in history or careers in high school teaching, journalism, law, library science, or government service.

The Honours Program consists of 30 units of course work normally taken during a student's third and fourth years of study. Honours students must complete, usually by the end of their third year, 480, Approaches to History, and 495, an honours tutorial requiring a research essay of 7,500-10,000 words. During their fourth year, students may take either 496, a second honours tutorial requiring a 7,500-10,000 word research essay, or 497, a course enabling students to expand their third year research essays into theses of 15,000-25,000 words.

As part of 496 and 497 an oral examination will be conducted by a committee composed of the faculty supervisor of the paper, the second reader of the paper and the departmental Honours Adviser. The examination will be open to other interested members of the department.

Also, Honours students must complete an additional nine units of history at the advanced level and twelve units of electives chosen in consultation with the Honours Adviser. Furthermore, students are required to demonstrate a reading knowledge of a language other than English by passing, with at least a C, a 200 level language course (French 180 is also acceptable) or by successfully writing and passing a special language examination administered by the Department of History.

Admission to the Honours Program requires a high second class standing in six units of history courses or seminars. Application for admission to the Honours Program should normally be made in the spring, during the student's second year, although a small number of third year applications may also be accepted.

Honours candidates are required to have their program of courses approved by the Honours Adviser. To avoid overspecialization, Honours students are encouraged to study more than one area of history and to choose several courses outside the Department of History. Candidates whose performance is unsatisfactory may be required to transfer from the Honours Program to the Major Program. Admission to the fourth year Honours Program is conditional upon satisfactory performance in the third year.

First and Second Class Honours degrees may be awarded. A First Class degree requires a first class graduating average and at least a 5.50 average in Honours courses (480, 495, 496 and 497). If an honours student has a first class graduating average but has averaged 2.50 to 5.49 in Honours courses, the student will be given the option of receiving Second Class Honours or a First Class Major. A Second Class degree requires a second class graduating average and at least a 2.50 average in Honours courses.

**UNDERGRADUATE COURSES**

NOTE: A brochure will be available through the department office at the start of the advance registration period, and will include any changes in scheduling made after publication of the University Calendar, as well as additional information not available at that time.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**INTRODUCTORY COURSES**

Students should consult the Department concerning courses offered in any particular year.

Please note – first year students may enroll in introductory courses at the 200 level.

**HIST 105 (formerly 242) (3) INTRODUCTION TO 20TH CENTURY WORLD HISTORY**

This is a broad interpretive survey of the major forces that have shaped the contemporary world from the end of World War I to the present. Particular emphasis is placed on the global spread of Western ideas and institutions, on the rise of the Third World, and on growing interdependence among nations. A lecture course with audio visual presentations and optional discussion sections. Y(3-0)

**HIST 130 (formerly 230) (3) HISTORY OF CANADA**

A survey of Canadian development from the beginning of the French regime to the present. This course is strongly recommended to students wishing to take advanced courses in Canadian history. Instruction in one section of this course will be in French. Y(3-0)

**HIST 205 (1½ or 3) INTRODUCTION TO HISTORY**

An introduction to methods and approaches used by various schools of historical analysis in attempting to understand the nature of political, cultural, social, and economic history. Particular subject varies at the discretion of the instructor. (May not be taken more than once for credit) (3-0)

**HIST 210 (3) HISTORY OF THE UNITED STATES**

A general survey of the history of the United States of America from the colonial period to the present. This course is strongly recommended to students wishing to take advanced courses in American History. B.W. Dippie, W.T. Wooley Y(3-0)

**HIST 220 (3) HISTORY OF ENGLAND**

History 220 is designed as a course for those who wish some acquaintance with the broad sweep of British history since the Norman Conquest. It may be used as a terminal course, complete in itself, or it may be used as a preliminary to more intensive study. This course is strongly recommended to students wishing to take advanced courses in British history. Y(3-0)

**HIST 234 (3) MAIN CURRENTS OF WESTERN THOUGHT**

A survey of the most influential ideas and intellectual movements of western culture from their origins, in Greece, and the Middle East, to recent times. Not open to students who have credit for History 400. NO(3-0)

**\* HIST 236 (3) MEDIEVAL EUROPE**

Europe from the fall of the western Roman Empire to the Renaissance; a survey of feudalism, manorialism, the church, and the political and intellectual life that characterized the middle ages. E.L. Ewan Y(3-0)

**\* HIST 240 (3) HISTORY OF MODERN EUROPE**

After providing a brief background in medieval institutions, this course surveys European history from the Renaissance to the mid 20th century. The lectures will focus on political, intellectual, cultural, and social aspects of European society and the modern state as it emerges in the contemporary world. Y(3-0)

**HIST 250 (H A 250) (1½) MIDDLE EASTERN CIVILIZATION: THE ANCIENT WORLD**

An introductory survey of the major historical developments and cultural achievements in the Ancient Near East and Egypt from the 4th millennium B.C. to the 7th century A.D. Particular emphasis will be given to the impact of political and social change on the evolution of civilizations. E. Dodd F(3-0)

**HIST 251 (H A 251) (1½) MIDDLE EASTERN CIVILIZATION: ISLAM**

An introductory survey of the major historical developments and cultural achievements in the Islamic Middle East from the 7th century A.D. to modern times. E. Dodd S(3-0)

**HIST 253 (formerly half of 252) (PACI 253) (1½) INTRODUCTION TO CHINESE CIVILIZATION**

The purpose of this course is to introduce the student to the traditional civilization of China. Though a survey of many thousands of years in so

short a space in time must of necessity be selective, the course will consider topics in the political, social, intellectual, and economic history of the civilization. (This course is a prerequisite to 433A and 433B) (3-0)

#### **HIST 254 (PACI 254) (1½) CHINA AND THE WEST**

An introductory survey of modern Chinese history with particular emphasis on China's relations with the West. The period covered will be from the 17th century but most emphasis will be on the last 150 years. (This course is a prerequisite for all upper level courses in modern Chinese history.)

R.C. Croizier

S(3-0)

#### **HIST 255 (formerly half of 252) (PACI 255) (1½) INTRODUCTION TO JAPANESE CIVILIZATION BEFORE THE 19TH CENTURY**

The purpose of this course is to introduce the student to the traditional civilization of Japan from earliest times to the end of the 18th century. Topics in political, social, intellectual, cultural and economic history will be considered. (This course is a prerequisite to 435.)

F(3-0)

#### **HIST 256 (PACI 256) (1½) INTRODUCTION TO MODERN JAPAN**

A survey of modern Japanese history from the 18th century to the present. After a review of the last century of "traditional Japan," the country's transformation to a modern state will be examined. The last section of the course will deal with the post 1945 period. (This course is a prerequisite for all upper level courses in modern Japanese history.)

S(3-0)

#### **HIST 260 (1½) HISTORY OF SCIENCE**

A general survey of some of the major achievements of Western science from antiquity to the present: Aristotle, Galileo, Darwin and Einstein will be among those thinkers whose work is examined. (3-0)

\* 236 and 240 are introductory courses to European history and as such are recommended to all Major and Honours candidates as well as to students who are not intending to specialize in history.

### **ADVANCED COURSES:**

#### **AMERICAN**

#### **HIST 300 (3) COLONIAL NORTH AMERICA**

The British American colonies from their founding to the disruption of the first British Empire, with emphasis on intellectual, social, and economic development. NO(3-0)

#### **HIST 301 (3) THE UNITED STATES IN THE 19TH CENTURY**

A study of the social, political, cultural, and economic development of the United States in the period from the framing of the Constitution to the Spanish-American War, with particular concentration on certain significant themes. NO(3-0)

#### **HIST 304 (3) THE UNITED STATES IN THE 20TH CENTURY**

An intensive study of American political, economic, and social history from the late 19th century to the present. Various major themes will be examined: industrialization, the growth of corporate power, urbanization, racial and ethnic relations, cultural change, and liberal reform. Particular attention will be devoted to the economic, social, and cultural determinants of American political history.

W.T. Wooley

Y(3-0)

#### **HIST 308 (3) AMERICAN INTELLECTUAL HISTORY**

A study of the evolution of American institutions and ideas. Emphasis will be given to selected aspects of the nation's cultural life.

B.W. Dippie

Y(3-0)

#### **HIST 310 (3) THE AMERICAN WEST**

The frontier in American history, the Trans-Mississippi West with emphasis on the Far West. NO(3-0)

#### **HIST 315 (3) AMERICAN DIPLOMATIC HISTORY**

A study of American foreign relations with emphasis on the 20th century and the history of American diplomatic thought. NO(3-0)

#### **HIST 318 (1½ or 3) TOPICS IN AMERICAN HISTORY**

An intensive study of selected aspects of American history. Students are advised to consult the Department for an outline of the topics to be considered. (May be taken more than once in different topics with per-

mission of the Chairman of the Department.)

"The Origins of the Cold War"

W.T. Wooley

F(3-0)

"The American Experience in Vietnam"

W.T. Wooley

S(3-0)

#### **HIST 319 (1½ or 3) SEMINAR IN AMERICAN HISTORY**

Selected topics in American history. Enrollment limited. Priority in registration given to honours and major students in history, but others may be admitted with consent of instructor. Students are advised to consult the Department about the topics to be considered. (May be taken more than once in different topics with permission of the Chairman of the Department.) NO(3-0)

### **BRITISH**

#### **HIST 321 (3) THE RISE AND FALL OF THE TUDOR STATE**

An intensive study of Monarchy, Church and Society in England under the impact of renaissance ideas, religious reformation and price inflation, from the final phase of medieval monarchy in the late 15th century to the breakdown of the institutions and relationships of Tudor government prior to the outbreak of Civil War in 1643.

S.W. Jackman

Y(3-0)

#### **HIST 322 (3, formerly 1½) THE ENGLISH REVOLUTION AND ITS SETTLEMENT, 1643-1715**

The principal themes in the development and consequences of the "Great Rebellion" and the "Revolution of 1688." The course will consider interpretive problems raised by the political, social, and intellectual influence of these events in both British and European history. (Not open to students with credit for 323 (Britain, 1660-1815) prior to 1982-83) NO(3-0)

#### **HIST 323 (3) BRITAIN, 1714-1815**

Britain from the accession of George I to Waterloo — an intensive study of the roots of political stability and of social change, and of the consequences of their interaction in Britain in the 18th century. NO(3-0)

#### **HIST 325 (3) BRITAIN, 1815-1914**

Great Britain, industry and empire; an intensive study of British history during the 19th century.

S.W. Jackman

Y(3-0)

#### **HIST 327 (3) 20TH CENTURY BRITAIN**

An examination of the major themes in the history of 20th century Britain, such as the collapse of imperial power, the development of closer relations with the European continent, and the social, cultural, and political tensions created by an era of rapid change and economic decline. Y(3-0)

#### **HIST 338 (1½ or 3) SEMINAR IN BRITISH HISTORY**

Selected topics in British history. Enrollment limited. Priority in registration given to honours and major students in history, but others may be admitted with consent of the instructor. Students are advised to consult the Department about the topics to be considered. (May be taken more than once in different topics with permission of the Chairman of the Department) Y(3-0)

### **CANADIAN**

#### **HIST 340 (3) NEW FRANCE**

A study of the French regime in Canada from 1500 to 1763. Themes to be stressed include European imperialism, migration and land settlement, the colonial economy, Amerindian-European contact, social structures, political development, and the emergence of a distinct culture. (HIST 130 and a reading knowledge of French would be useful but are not required.) NO(3-0)

#### **HIST 342 (3) BRITISH NORTH AMERICA, CONQUEST TO CONFEDERATION**

A combination of lectures and seminars examining the development of the economy, society, and culture of the area comprising presentday Ontario, Québec, and the Maritimes. Particular emphasis will be placed upon the emergence of distinct social and cultural entities in each of these areas. Y(3-0)

**HIST 343 (3) CANADIAN LABOUR HISTORY**

This course examines the working class experience and the development of organized labour movements in Canada, with particular emphasis on the 19th and 20th centuries. Topics include preindustrial working conditions, industrialization, labour organizations, the growth of trade unions, labour legislation, and labour politics. (*Prerequisite:* 130 or consent of the instructor)

E.W. Sager

Y(3-0)

**HIST 344 (3) POLITICAL HISTORY OF CANADA SINCE CONFEDERATION**

A study of recurring themes and problems in Canadian history including national policies, French-English tensions, federal-provincial conflicts, and external relations. Attention will be given to the social and economic background of these problems as well as their political manifestations.

P.E. Roy

Y(3-0)

**HIST 345 (1½) TOPICS IN CANADIAN-AMERICAN RELATIONS**

Selected topics in the economic, cultural, political, and diplomatic aspects of Canadian-American relations. (Students with credit for 358 should consult the instructor before enrolling in this course.)

P.A. Baskerville

(3-0)

**HIST 346A (formerly half of 346) (1½) CANADIAN URBAN HISTORY**

Examines Canadian urban development using two complementary approaches: a history of individual cities and a history of the process of urbanization. In analyzing these two general topics, some of the themes to be discussed will be: economic growth and metropolitan development; population growth and change; social and political organization; and spatial growth and the physical environment. The course will cover the period from 1608 to the present, but the emphasis normally will be on 20th century urban development.

NO(3-0)

**HIST 346B (formerly half of 346) (1½ or 3) SEMINAR IN CANADIAN URBAN HISTORY**

Selected topics in Canadian Urban History, with an emphasis on historiography and methodology; enrollment limited. (*Prerequisite:* 346A or consent of the instructor)

NO(3-0)

**HIST 347 (3) BUSINESS AND SOCIETY IN PERSPECTIVE: THE CANADIAN EXPERIENCE, 1800-1970**

This course examines the changing function of the entrepreneur within Canadian society. There will be particular emphasis on business relations with labour, consumers, and politicians; self perception within the business community; and the influence of British, American, and multinational corporations on the development of a Canadian entrepreneurial class.

NO(3-0)

**HIST 348 (3) SOCIAL AND INTELLECTUAL HISTORY OF CANADA**

A thematic study of the major intellectual and social attitudes, values, assumptions, and expectations in 19th and 20th century Canada. Students will examine original works by Canadians in a number of disciplines including history, politics, the social sciences, literature and art.

NO(3-0)

**HIST 349 (1½) EDUCATION AND CHILDHOOD IN CANADIAN HISTORY**

This course examines the social, political, and ideological context of the development of educational systems in Canada. It emphasizes such topics as concepts of childhood, the interrelationships of school and society, and the nature of educational reform.

NO(3-0)

**HIST 350A (formerly half of 350) (1½) PRAIRIE HISTORY TO 1905**

The early history of the Prairie region; with special emphasis on such topics as native societies before the arrival of Europeans, the fur trade societies established by the Hudson's Bay Company and the St. Lawrence merchants, the Selkirk and other early settlements, the Métis civilization, the establishment of Manitoba, the North West Rebellion, and the establishment of Saskatchewan and Alberta.

F(3-0)

**HIST 350B (formerly half of 350) (1½) PRAIRIE HISTORY SINCE 1905**

Emergence of the Prairie region after the creation of Alberta and Saskatchewan with particular emphasis on the immigration boom, the growth of cities, the wheat economy, agrarian and labour radicalism, the impact of the World Wars, the third party tradition, recent resource development, and the role of the region in national political development.

S(3-0)

**HIST 350C (1½ or 3) RESEARCH SEMINAR IN PRAIRIE HISTORY**

Selected topics in Prairie History; the historiography of the region and methods of research will receive special emphasis. (*Prerequisite:* 350 or 350A or 350B or written consent of the instructor)

NO(3-0)

**HIST 351 (3) QUEBEC**

A history of the province of Quebec from 1763 to the present. Emphasis will be on the development of a unique society in Québec. (HIST 130 and a reading knowledge of French would be useful but are not required.)

NO(3-0)

**HIST 352 (1½) SEMINAR IN FRENCH CANADA**

A study of selected problems in French Canadian history stressing patterns in intellectual, social and economic development, emphasizing the 19th and 20th centuries. This course will be taught as a seminar, and will be offered in alternate years only. (*Prerequisite:* 130, and a reading knowledge of French, or written consent of the instructor)

NO(3-0)

**HIST 353 (1½ or 3) SEMINAR IN BRITISH COLUMBIAN HISTORY**

Selected topics in British Columbian history. Enrollment limited. Priority in registration given to honours and major students in history, but others may be admitted with consent of the instructor. Students are advised to consult the Department about the topics to be considered. (May be taken more than once in different topics with permission of the Chairman of the Department.)

NO(3-0)

**HIST 354A (1½) NORTHWEST AMERICA TO 1849**

An overview of the early history and literature of the region west of the Rocky Mountains and north of California, prior to the establishment of the colony of Vancouver Island in 1849. After a brief survey of the prehistory of the area, lectures will focus upon the period following the Indians' discovery of white men along the coast in the 18th century, and the consequences to both races that flowed from that initial contact. Topics to be considered will include maritime and overland exploration, European rivalries and claims, the development of the maritime and overland fur trade, and Indian-white relations.

J.E. Hendrickson

F(3-0)

**HIST 354B (1½) BRITISH COLUMBIA, 1849-1900**

A study of the foundations of modern British Columbia, beginning with the founding of the colony of Vancouver Island to the emergence of provincial political parties about the end of the 19th century; topics to be considered will include the colonies of Vancouver Island and British Columbia, the gold rush, settlement patterns, the origins of institutional life, Indian policy and Indian-white relations, and early federal-provincial relations. (*Prerequisite:* 130 or 354A or consent of the instructor)

J.E. Hendrickson

S(3-0)

**HIST 355 (1½) BRITISH COLUMBIA SINCE 1885**

The emphasis will be on social, economic, and political developments within the province. Written assignments will be required.

P.E. Roy

F(3-0)

**HIST 356 (3) CANADIAN CONSTITUTIONAL HISTORY**

A study of the evolution of the Canadian Constitution from 1763 to the present.

NO(3-0)

**HIST 357A (1½) SEMINAR IN CANADIAN DEFENCE POLICY**

A study of selected aspects of Canadian defence policy since 1867. Emphasis on the military policies and strategic role of Canada in the 20th century (Enrollment limited) (*Prerequisite:* 130 or consent of the instructor)

F(3-0)

**HIST 357B (1½) SEMINAR IN CANADIAN EXTERNAL POLICY**

A study of selected aspects of Canadian external policy since 1867, with emphasis on Canada's position as a middle power. (Enrollment limited) (*Prerequisite:* 130 or consent of the instructor)

S(3-0)

**HIST 358 (1½ or 3) TOPICS IN CANADIAN HISTORY**

An intensive study of selected aspects of Canadian history. (Each of the following topics may be taken more than once with permission of the Chairman of the Department.)

(3-0)

**HIST 358A (1½ or 3) WOMEN IN CANADA**

A history of women in Canada from the era of New France to the present. (Not open to students with credit for this topic in 358)

(3-0)

**HIST 359 (1½ or 3) SEMINAR IN CANADIAN HISTORY**

Selected topics in Canadian history. (Enrollment limited. Priority in registration given to honours and major students in history, but others may be admitted with consent of instructor. Students are advised to consult the Department about the topics to be considered.) (May be taken more than once in different topics with permission of the Chairman of the Department)

"Racism and Antisemitism in Canada"	
P.M. Senese	F(3-0)
"Rural History: Canadian Perspectives"	
G.R.I. MacPherson	F(3-0)
"Micro History: Theory and Practice for Regional Studies"	
P.A. Baskerville	(3-0)
"Northern Canada"	
K.S. Coates	Y(3-0)
"Indian-White Relations"	
K.S. Coates	Y(3-0)
"Ships and Seafaring"	
E.W. Sager	S(3-0)

**EUROPEAN****HIST 360 (1½) THE RENAISSANCE**

A study of the conditions, ideas, and men involved in the intellectual quickening that ushered in the early modern period of European history.

R.J. McCue F(3-0)

**HIST 361 (1½) THE REFORMATION**

A history of the men, and the political and religious factors involved in the upheavals of the Protestant and Roman Catholic reformations.

R.J. McCue S(3-0)

**HIST 362 (1½) EUROPE UNDER THE ANCIEN REGIME**

Preindustrial Europe in the 17th and 18th centuries. A social and cultural history of Western Europe. Emphasis will be placed on sex roles, household and family structure, religious beliefs, economic relations, and attitudes towards crime, madness and poverty. (*Prerequisite*: None; 240 recommended)

K. Piechura S(3-0)

**HIST 363 (1½) REVOLUTIONARY AND NAPOLEONIC EUROPE**

A study of the French Revolution and its impact on Europe in the late 18th and early 19th centuries. (*Prerequisite*: None; 240 recommended)

NO(3-0)

**HIST 365A (1½) SOCIAL AND CULTURAL HISTORY OF MODERN EUROPE: 1770-1848**

The early industrial society of 19th century Europe. An examination of the initial impact of the commercial and industrial revolutions on Europe in the first half of the 19th century with special attention being paid to the transformation of everyday life, the growth of cities, and the making of the working and middle classes. (*Prerequisite*: None; 240 recommended)

A.G. McLaren S(3-0)

**HIST 365B (1½) SOCIAL, CULTURAL, AND POLITICAL HISTORY OF MODERN EUROPE: 1848-1914**

The mature industrial society of late 19th century Europe. An examination of the full flowering of industrial society in the latter half of the 19th century with special attention being paid to the acceleration of economic development, the stabilization of urban life, the professionalization of culture, and the bureaucratization of business and government. (*Prerequisite*: None; 240 recommended)

A.G. McLaren S(3-0)

**HIST 366 (1½) EUROPE BETWEEN TWO WORLD WARS**

This course will examine the impact of the First World War on European society through its effect on the international order and the rise of totalitarian ideologies such as communism and fascism. (*Prerequisite*: None; 105 or 240 recommended)

F(3-0)

**HIST 367 (1½) THE SECOND WORLD WAR AND THE RECOVERY OF WESTERN EUROPE**

An examination of the effects of the Second World War on Europe, and the recovery of the Western European states in the postwar period. (*Prerequisites*: None; 105 or 240 recommended)

S(3-0)

**HIST 370 (1½) FRANCE FROM THE REVOLUTION TO THE THIRD REPUBLIC, 1789-1870**

An examination of the principal themes in French history from 1789 to 1870 such as the revolutionary tradition and conservative responses, anticlericalism and Catholicism, Parisian culture and peasant backwardness, and the beginnings of French imperialism. (*Prerequisite*: None; 240 recommended)

F(3-0)

**HIST 371 (1½) MODERN FRANCE, 1870-1945**

An examination of the principal themes in French history from 1870 to 1945 such as the emergence of the 'stalemate' society, the clashes of Left and Right, the growth of the French Empire, and Franco-German conflict. (*Prerequisite*: None; 105 or 240 recommended)

S(3-0)

**HIST 372 (1½) IMPERIAL GERMANY**

An examination of the principal themes in German history between the formation of the united state in 1871 and the German revolution of 1918-1919. (*Prerequisite*: None; 240 recommended)

T.J. Saunders F(3-0)

**HIST 373 (1½) WEIMAR AND NAZI GERMANY**

An examination of the principal themes and developments in German history between the end of World War One and the collapse of the Third Reich in 1945. (*Prerequisite*: None; 105 or 240 recommended)

T.J. Saunders S(3-0)

**HIST 374 (SLAV 374) (3) IMPERIAL RUSSIA, 1689-1917**

A history of Russia from Peter the Great to the fall of the monarchy. The course traces the response of the Russian state and Russian society to changing national needs and the challenge of the West. Through reports and discussions, emphasis will be given to periods of rapid change.

D.L. Senese Y(3-0)

**HIST 376 (SLAV 376) (1½) THE SOVIET UNION**

A history of the U.S.S.R. from 1917 to the present. The course will analyze the forces that have moulded the policies of the Communist leadership and examine how these policies have affected the shape of Soviet society and the role of the Soviet Union in world affairs.

D.L. Senese F(3-0)

**HIST 380 (1½) PROBLEMS IN MEDIEVAL EUROPE**

A detailed study of selected problems in the history of Medieval Europe. The specific topics to be considered will vary from year to year. (*Prerequisite*: None; 236 recommended)

"Medieval Women" S(3-0)

E.L. Ewan

"The Celtic and Scandinavian World in the Middle Ages" F(3-0)

E.L. Ewan

"Medieval Towns" F(3-0)

E.L. Ewan

**HIST 382 (1½) THE SCIENTIFIC AND INTELLECTUAL REVOLUTION OF THE 17TH CENTURY**

A survey of the rise of modern science and the new world view which resulted from its success. Among the thinkers to be considered will be Galileo, Francis Bacon, Descartes, Hobbes, Newton and Locke. These men and their ideas will be examined in the social and political context of their times. The course is historical in emphasis and does not undertake literary criticism or philosophical analysis.

NO(3-0)

**HIST 383 (1½) THE ENLIGHTENMENT**

The 18th century challenge to authority; the revolutionary implications of attempts to discover scientific laws in human behaviour. The thought of the French *philosophes* will be considered together with that of other influential thinkers such as Rousseau, Hume and Adam Smith. These thinkers and their ideas will be discussed in the social and political context of their times. The course is historical in emphasis and does not undertake literary criticism or philosophical analysis.

NO(3-0)

**HIST 384 (1½) THE 19TH CENTURY MIND**

The Romantic reaction to the French Revolution, the role of ideologies such as liberalism, nationalism and socialism, and the impact of the theory of evolution. These movements and others will be explored in terms of their social and political background. The course is historical in emphasis and does not undertake literary criticism or philosophical analysis.

NO(3-0)

**HIST 385 (1½) THE CRISIS OF MODERN THOUGHT**

A study of the role of irrationalism and relativism in the work of such

thinkers as Nietzsche, Freud and Einstein. Existentialism, fascism, Keynesian economics and other responses to the cataclysmic changes of the twentieth century will also be considered in their social and political setting. The course is historical in emphasis and does not undertake literary criticism or philosophical analysis. NO(3-0)

### HIST 388 (1½ or 3) TOPICS IN EUROPEAN HISTORY

An intensive study of selected aspects of European history. Students are advised to consult the Department for an outline of the topics to be considered. (May be taken more than once in different topics with permission of the Chairman of the Department).

"Family History"

A.G. McLaren F(3-0)

### HIST 389 (1½ or 3) SEMINAR IN EUROPEAN HISTORY

Selected topics in European history. (Enrollment limited. Priority in registration given to honours and major students in history, but others may be admitted with consent of instructor.) (Students are advised to consult the Department about the topics to be considered.) (May be taken more than once in different topics with permission of the Chairman of the Department)

"Sex and History"

A.G. McLaren S(3-0)

"Pietism, Deism and Atheism: The New Religions of the Enlightenment"

R.J. McCue S(3-0)

"The 'Greats' of History"

R.J. McCue F(3-0)

"The Family in History"

A.G. McLaren F(3-0)

"German Culture Between the Wars"

T.J. Saunders S(3-0)

### HIST 390 (3) WAR IN THE MODERN WORLD, 1755 TO THE PRESENT

A survey of European military history from the Seven Years' War to the present day. It covers the change from the limited warfare of the early 18th century to the unlimited warfare of the 20th century. Emphasis is placed on the causes of war, the impact of new inventions on tactics and strategy, and the social, political, and economic results of wars on society up to and including the atomic age. Y(3-0)

### HIST 392 (1½ or 3) SEMINAR IN THE HISTORY OF THE SECOND WORLD WAR

Selected topics in the history of the Second World War. Enrollment limited. Priority in registration given to honours and major students in history, but others may be admitted with the consent of instructor. Students are advised to consult with Department about topics to be considered. (May be taken more than once in different topics with permission of the Chairman of the Department) (3-0)

### HIST 395 (3) SCIENTIFIC CONSCIOUSNESS IN HISTORICAL PERSPECTIVE

A study of the "topography" of human consciousness as it has existed in the West from archaic times to the present; particular emphasis will be placed on the scientific consciousness of the modern era. Topics include the archaic tradition; the emergence of rationalism; the Scientific Revolution and its historical impact; and the current challenges being posed to the scientific world view. NO(3-0)

### HIST 396 (1½ or 3) TOPICS IN THE HISTORY OF SCIENCE

An intensive study of selected topics in the history of science; students are advised to consult the Department for an outline of the topics to be considered. The course may be taken more than once in different topics with permission of the Chairman of the Department. NO(3-0)

### HIST 397 (1½) THE RISE OF DARWINIAN EVOLUTION, 1760 TO THE PRESENT

The history of Darwinian evolution and its emergence as the unifying principle in the biological sciences. The course will examine the social context in which Darwinism emerged, the specific content of the theory, its scientific and philosophical antecedents, and the challenges that have been posed to Darwinism in recent times. (Not open to students with credit in 396 in 1983-84, 1984-85) NO(3-0)

### HIST 399 (3) THE HISTORY OF MENTALITIES

An analysis of a number of social phenomena and their structural relationships as they have existed in Western civilization from the Middle Ages to the present; topics to be studied include suicide, addiction, creativity, romantic love, heresy and revolution. NO(3-0)

## ASIAN

### HIST 433A (PACI 433A) (1½) ANCIENT CHINA

A study of the rise of Chinese civilization and Empire from the earliest times to approximately 200 A.D. Major themes will be the origins of Chinese civilization, the flowering of Chinese philosophy in the times of Confucius and Lao-tzu, the formation of a unified Empire, and the social foundations of the Imperial State. (Prerequisite: 253 or permission of the instructor)

H. Hsiao F(3-0)

### HIST 433B (PACI 433B) (1½) PRE-MODERN CHINA

The development of Chinese civilization from the fall of the Han Empire in the 3rd century A.D., through the reunification of China under the Tang, to the Manchu Conquest of China in 1644. Major attention will be given to the political and social dynamics of the Imperial State and to the cultural basis of Chinese civilization. (Prerequisite: 253 or permission of the instructor)

H. Hsiao S(3-0)

### HIST 434A (PACI 434A) (1½) MODERN CHINA

China's encounter with the modern West from the 17th century to the mid 20th century. Emphasis on the collapse of the traditional order and the search for new political, social, and cultural forms. (Prerequisite: 254 or permission of the instructor) NO(3-0)

### HIST 434B (PACI 434B) (1½) CHINA IN REVOLUTION

The roots of Chinese Communism, its rise to power, and the development of the People's Republic since 1949. Attention will also be given to China's new role in international politics. (Prerequisite: 254 or permission of the instructor) NO(3-0)

### HIST 435 (PACI 435) (1½) FEUDALISM IN JAPAN: THE WAY OF THE WARRIOR FROM THE 12TH TO THE 19TH CENTURY

A study of politics, economics, society and culture in medieval and Tokugawa Japan with emphasis upon the role of the samurai class. (Prerequisite: 255 or permission of the instructor) (3-0)

### HIST 436A (PACI 436A) (1½) JAPAN'S MODERN TRANSFORMATION: FROM FEUDAL COUNTRY TO NATION-STATE

An examination of a rapidly changing Japan from the time of the "opening" of the country by the Western powers in the middle of the 19th century to the time of the Pacific War and its aftermath in the middle of the 20th century. The format requires student participation such as oral presentations, written papers, and class discussion throughout the course. F(3-0)

### HIST 436B (PACI 436B) (1½) 20TH CENTURY JAPAN

A study of modern Japanese society and culture in the 20th century. Special attention will be paid to the influences of Westernization and industrialization upon traditional modes of thought, work, everyday life and creative endeavours. Changes in family life in the cities and in the countryside will be examined. (Prerequisite: None) S(3-0)

### HIST 437 (PACI 437) (1½) JAPANESE WOMEN FROM THE 6TH TO THE 20TH CENTURY

A study of the history of Japanese women from the time of the ancient communities, through the golden age of classical literature, different phases of Japanese feudalism, disruptions and continuities of the post-1868 nation. The format requires student participation such as oral presentations, written papers, and class discussion throughout the course. (Not open for credit to students who have studied this topic under HIST 438) F(3-0)

### HIST 438 (PACI 438) (1½ or 3) TOPICS IN EAST ASIAN HISTORY

An intensive study of selected aspects of East Asian history. (Students are advised to consult the Department for information regarding the subjects to be considered. May be taken for credit more than once in different topics with permission of the Chairman of the Department.) (Prerequisite: Relevant course work and permission of the instructor) "Women in the Chinese Revolution"

R.C. Crozier S(3-0)

### HIST 439 (PACI 439) (1½ or 3) SEMINAR IN EAST ASIAN HISTORY

Selected topics in East Asian history. (Enrollment limited. Priority in registration given to honours and major students in history, but others may be admitted with consent of instructor. Students are advised to consult the Department about the topics to be considered. May be taken more than once in different topics with permission of the Chairman of

the department) (*Prerequisite:* Relevant course work and permission of the instructor)

"Chinese Literature"

R.C. Croizier, R. King

F(3-0)

### COMPARATIVE STUDIES

#### HIST 462 (HA 462) (3) ART AND REVOLUTION

Examines the role of the artist (mainly through painting and graphics) in the major social and political revolutions of modern times. Emphasis on the French, Russian and Chinese revolutions but some consideration of political art in other revolutions and movements of social protest.

NO(3-0)

#### HIST 464 (1½) BRITISH COLUMBIA AND THE AMERICAN PACIFIC NORTHWEST

A comparative examination of some of the political, economic, and cultural developments representative of the history of British Columbia and the American Pacific Northwest.

NO(3-0)

#### HIST 469 (1½ or 3) SEMINAR IN COMPARATIVE HISTORY

Selected topics in comparative history. This course will examine various themes within different historical contexts. Students are advised to consult the Department about the topics to be considered in any given year. (May be taken more than once, to a maximum of 6 units, with permission of the Chairman of the Department)

(3-0)

"An Introduction to the Computer in History"

E.W. Sager

F(3-0)

"The Status of Women in India"

R. Lippert

S(3-0)

### SPECIALIZED COURSES

#### HIST 480 (3) APPROACHES TO HISTORY

A seminar devoted to studying the history of history and the nature of history as an intellectual discipline.

Y(3-0)

#### HIST 490 (1½ or 3) DIRECTED READING

Students wishing to pursue a course of directed reading should, together with a faculty member willing to supervise such a course, formulate a proposal describing both the content of the course and a suitable means of evaluating the student's work. The proposal must then receive the approval of the Chairman of the Department. Students may take this course for a total of 6 units, but not more than 3 units in any given year.

#### HIST 495 (3) THIRD YEAR HONOURS TUTORIAL

Directed readings and research. Students will be required to write a research essay of 7,500-10,000 words under the direction of a member of the Department.

#### HIST 496 (3) FOURTH YEAR HONOURS TUTORIAL

Directed readings and research. Students will be required to write a research essay of 7,500-10,000 words under the direction of a member of the Department. After acceptance of the paper by the supervising faculty member the student will undergo an oral examination on the field covered in the paper.

#### HIST 497 (3) HONOURS THESIS

The preparation of an honours thesis from 15,000 to 25,000 words in length under the direction of a member of the Department. Normally, this thesis is an expansion of the student's research essay written for 495. After acceptance of the paper by the supervising faculty member, the student will undergo an oral examination on the field covered in the paper.

## GRADUATE COURSES

Not all the following courses will be offered in a particular year.

Students should consult the Department concerning specific content of the courses offered in any given year.

#### HIST 500 (3) HISTORIOGRAPHY

#### HIST 501 (3) FIELD IN AMERICAN HISTORY

#### \*HIST 502 (3) FIELD IN BRITISH HISTORY

#### \*HIST 503 (3) FIELD IN CANADIAN HISTORY

#### \*HIST 504 (3) FIELD IN EUROPEAN HISTORY

#### \*HIST 505 (3) FIELD IN ASIAN HISTORY

#### \*HIST 508 (3) FIELD IN THEMATIC STUDIES: I

#### \*HIST 509 (3) FIELD IN THEMATIC STUDIES: II

#### HIST 560 (FORMERLY 598) (3) THESIS TUTORIAL

#### HIST 598 (FORMERLY 595) (3) EXTENDED RESEARCH PAPER

(Grading: INP, Com, N or F)

#### HIST 599 (12) M.A. THESIS

(Grading: INP, Com, N or F)

\*May be taken more than once for credit provided course content differs.

## HUMANITIES DIPLOMA PROGRAM

Stephen Scobie, M.A. (St. And.), Ph.D. (Brit. Col.), Faculty Coordinator

The Diploma Program in the Humanities is designed primarily for mature students who wish to explore possibilities for study in the Humanities without committing themselves to a full degree program. Candidates must have sought and obtained admission to the University. Students may complete the program on a part time basis, but must complete successfully at least 18 units of course work over a period of two to six years. Diploma students, with the guidance and assistance of a Faculty Coordinator, will arrange a program of courses organized around a particular theme or period. Students may select courses from Faculties and Divisions other than the Humanities Division, but such selection will be subject to the permissions of the departments involved and to the approval of the Faculty Coordinator. In the first year of their program they must take HUMA 100, a credit seminar, and HUMA 101, a brief noncredit orientation seminar. To remain in the program and to graduate in the program, Diploma Candidates must maintain a grade point average of at least 4.00.

Credit obtained within the Humanities Diploma Program may be

transferable to a regular degree program. However, such transferability of credit is always subject to the specific requirements of the degree program.

The program is administered jointly by the Division of Humanities and by the Division of University Extension and Community Relations. All inquiries concerning details and regulations of the program should be addressed to the Faculty Coordinator, Prof. S.A.C. Scobie, Department of English.

## COURSES

#### HUMA 100 (1½) AN INTRODUCTION TO HUMANITIES

An introduction to the various ways in which scholars from different disciplines in the Humanities interpret, analyze, and evaluate texts. (Restricted to students in the Humanities Diploma Program) (3-0)

#### HUMA 101 (0) DIPLOMA ORIENTATION SEMINAR

This seminar will be taken in conjunction with Humanities 100 by all students in the Diploma Program.

## LIBERAL ARTS

### COURSES

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

It is recommended that students take 306 before 307. First year students may enroll only with the permission of the instructor.

#### LA 306 (1½) IDEAS AND PERSPECTIVES IN WESTERN CIVILIZATION: I

A critical interdisciplinary inquiry into some seminal ideas of western

civilization and some perennial questions human beings have raised about themselves, human relationships, the social order, nature, God, and human destiny. Representative works will be drawn from literature, art, religion, philosophy, history, and social theory, from the Hellenic age to the 17th century. Texts will be studied and discussed not only as indicative of the climate of opinion of their time but also as having significance for formulating a philosophy of life. Guest lecturers from other departments will contribute, and occasionally films or slides relevant to the cultural and historical context of a work will be shown. (There are no prerequisites for the course, except that first year students may enroll

only with permission of the instructor.) Texts: Sophocles, *Antigone*; selections from: Plato, *Apology*, *Crito*, *Republic*, *Phaedo*, *Symposium*; Aristotle, *Ethics*; Vergil, *Aeneid*; *The Bible*; Dante, *The Divine Comedy*; Machiavelli, *The Prince*; and Pascal, *Pensées*. (For further information concerning the course in any given year students should contact the department of Philosophy.) (Not open to students with credit in 305) (Intend to offer 1989-90) NO(3-0)

### LA 307 (1½) IDEAS AND PERSPECTIVES IN WESTERN CIVILIZATION: II

This course continues the inquiry of 306, using texts (including at least one scientific work) drawn from the 18th century to the present. Guest lecturers from other departments will contribute, and occasionally films or slides relevant to the cultural and historical context of a work will be

shown. (306 is not a prerequisite for 307 though students are encouraged to follow both studies in sequence; and there are no other prerequisites, except that first year students may enroll only with permission of the instructor.) Texts: Pope, *An Essay on Man*; Goethe, *Faust* (selections); Marx, *The Economic and Philosophic Manuscripts of 1844* (selections); Darwin, *The Origin of Species* (selections); Dostoevsky, *The Grand Inquisitor* (from *The Brothers Karamazov*); Nietzsche, *Twilight of the Idols* and *The Gay Science* (selections); Freud, *Civilization and Its Discontents* (selections); Weber, *Politics as a Vocation* (selections); Sartre, *Existentialism is a Humanism*; Merleau-Ponty, *Sense and Non-Sense* (selections). (For further information concerning the course in any given year students should contact the department of Philosophy.) (Not open to students with credit in 305) (Intend to offer 1989-90) NO(3-0)

## DEPARTMENT OF LINGUISTICS

Joseph F. Kess, B.S. (Georgetown), M.A., Ph.D. (Hawaii), Professor and Chairman of the Department  
 Geoffrey N. O'Grady, B.A. (Sydney), Ph.D. (Indiana), Professor  
 Barry F. Carlson, B.A., M.A. (Colo.), Ph.D. (Hawaii), Associate Professor  
 Thomas M. Hess, B.A. (Colo.), M.A., Ph.D. (Wash.), Associate Professor  
 Thomas E. Hukari, B.A. (Ore.), M.A., Ph.D. (Wash.), Associate Professor  
 Henry J. Warkentyne, B.A. (W. Ont.), M.A., Ph.D. (London), Associate Professor  
 James Arthur, B.A. (Durham), M.A. (U. of Vic.), Ph.D. (Brit. Col.), Assistant Professor  
 B. Craig Dickson, B.A., M.A. (U. of Vic.), Adjunct Assistant Professor (1986-88)  
 Stephen J. Eady, B.Sc. (Wat.), M.A. (Ott.), Ph.D. (Conn.), Adjunct Assistant Professor (1986-88)  
 John H. Esling, B.A. (Northwestern), M.A. (Mich.), Ph.D. (Edin.), Assistant Professor  
 Barbara P. Harris, B.A. (Carleton), M.A., Ph.D. (U. of Vic.), Assistant Professor  
 Dawn Elizabeth Bates, B.A. (Wash.), Visiting Lecturer (1987-88)

### GRADUATE PROGRAMS

For information on studies leading to the M.A. and Ph.D. degrees, see page 226; for graduate courses, see page 103.

### GENERAL, MAJOR AND HONOURS PROGRAMS

#### PREREQUISITE

Except by permission of the Department, first year students may not take courses numbered 300 or higher. Courses numbered 400 or higher require at least a third year standing or permission of the Department.

Some knowledge of a language other than English is recommended. Although it is not required for the General, Major and Honours programs in Linguistics, first year students who plan to undertake any of these programs are urged to enroll in 100.

#### B.A. In Linguistics

**General** — Students who begin the study of Linguistics as one of their fields in the General Program in their first or second year are advised to take 100, and then at least nine units of upper level courses in Linguistics in their third and fourth years.

Students who begin the study of Linguistics as one of their fields in the General Program of their third and fourth years should take 360 or 362 and at least six other units of upper level courses in Linguistics.

**Major** — The requirements for a Major in Linguistics are 210A and 210B, 250, 251 and 15 units of senior courses in Linguistics including at least 3 units from Linguistics 410A, 410B or 410C, 440, and 441.

**Honours** — Students who wish to take an Honours program in Linguistics begin the program in the third year with the permission of the Department. Honours students must: (a) achieve at least a B average in all Linguistics courses taken in each of the third and fourth years and maintain a second class average in all work of the third and fourth years; (b) present 21 units of upper level Linguistics courses including 410A and 410B or 410C, 440, 441 and 499.

Students who meet the above requirements will be recommended for Honours degrees as follows. Successful completion of all prescribed courses together with the following graduating average: First Class Honours, 6.50 or higher, and a letter grade of at least A- in Linguistics 499

(Honours Thesis); Second Class Honours, 3.50 to 6.49, and a letter grade of at least B in 499. All Honours students are required to submit their proposals for Honours thesis research at the beginning of their final year. An Honours student with a first class graduating average, but with a grade less than A- in 499, will be given the option of receiving a Second Class Honours or a First Class Major degree.

#### B.A. in Applied Linguistics (Emphasis on teaching English as a Second Language)

##### Major

##### First and Second Years

Required Courses: 210A & 210B, 250, 251; 4½ units of first and second year English courses including ENGL 115 or 215; PSYC 100. Six units in a second language of which three units should normally be at the second year level.

##### Third and Fourth Years

Required Courses: 374, 375, 376, 388 or 389, 410A, 440; and 6 units selected from 369, 370, 373, 378, 386, 390, 392 or 393, 395 (15 units). 376 will normally be taken in the final year of study.

Corequisite Courses: Three units selected from upper level English or Creative Writing in consultation with the Department.

Recommended Electives: Three units selected from Education-B 342, 343, 360, 361, 435.

##### Honours

In addition to the requirements for the Major, the Honours student must present 410B or 410C, 441, and 499 for a total of 21 units of upper level Linguistics courses. The regulations regarding the required level of achievement and the class of Honours awarded are the same as those stated above for the B.A. in Linguistics.

Notes: 1. The B.A. degree in Applied Linguistics will prepare the individual for teaching English as a second language in many foreign countries and in Canadian programs existing outside the public school system.

2. The B.A. in Applied Linguistics does not qualify students to teach in the schools of British Columbia. Those who wish to be teachers in the British Columbia school system must either hold an Education degree or have successfully completed the professional program for graduates offered by Education faculties in the Province. (For particulars, see page 154.)

#### B.Sc. in Linguistics

##### Major

##### First and Second Years

Required Courses: 210A and 210B, 250, 251; BIOL 150 or 207 and PE 141; MATH 100 and 101 (or 102 and 151 with permission of the Department); 3 units from PHYS 100, 102, 110, 120, 220; PSYC 100 and 201.

Recommended Electives: CSC 100, 110, 115; PE 241A and 241B (prerequisite 141); PHYS 214; PSYC 215A or 215B, 235; course(s) in a second language.

##### Third and Fourth Years

Required Courses: 369, 370, 380, 381, 382, 383; three units selected from 410A, 410B or 410C, 440, 441, and three additional units of Linguistics courses numbered upwards of 300, selected from the B.Sc. list in consultation with the Department (15 units).

Corequisite Courses: PSYC 300A and 4½ units selected from PSYC 300B, 313, 315, 317, 335 or 337, 371, 415.

##### Honours

In addition to the requirements for the Major, the Honours students must present all of 410A, 410B or 410C, 440, 441 and 499 for a total of 21

only with permission of the instructor.) Texts: Sophocles, *Antigone*; selections from: Plato, *Apology, Crito, Republic, Phaedo, Symposium*; Aristotle, *Ethics*; Vergil, *Aeneid*; *The Bible*; Dante, *The Divine Comedy*; Machiavelli, *The Prince*; and Pascal, *Pensées*. (For further information concerning the course in any given year students should contact the department of Philosophy.) (Not open to students with credit in 305) (Intend to offer 1989-90) NO(3-0)

### LA 307 (1½) IDEAS AND PERSPECTIVES IN WESTERN CIVILIZATION: II

This course continues the inquiry of 306, using texts (including at least one scientific work) drawn from the 18th century to the present. Guest lecturers from other departments will contribute, and occasionally films or slides relevant to the cultural and historical context of a work will be

shown. (306 is not a prerequisite for 307 though students are encouraged to follow both studies in sequence; and there are no other prerequisites, except that first year students may enroll only with permission of the instructor.) Texts: Pope, *An Essay on Man*; Goethe, *Faust* (selections); Marx, *The Economic and Philosophic Manuscripts of 1844* (selections); Darwin, *The Origin of Species* (selections); Dostoevsky, *The Grand Inquisitor* (from *The Brothers Karamazov*), Nietzsche, *Twilight of the Idols* and *The Gay Science* (selections); Freud, *Civilization and Its Discontents* (selections); Weber, *Politics as a Vocation* (selections); Sartre, *Existentialism is a Humanism*; Merleau-Ponty, *Sense and Non-Sense* (selections). (For further information concerning the course in any given year students should contact the department of Philosophy.) (Not open to students with credit in 305) (Intend to offer 1989-90) NO(3-0)

## DEPARTMENT OF LINGUISTICS

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 James Arthurs, B.A. (Durham), M.A. (U. of Vic.), Ph.D. (Brit. Col.), Assistant Professor  
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### GRADUATE PROGRAMS

For information on studies leading to the M.A. and Ph.D. degrees, see page 226; for graduate courses, see page 103.

### GENERAL, MAJOR AND HONOURS PROGRAMS

#### PREREQUISITE

Except by permission of the Department, first year students may not take courses numbered 300 or higher. Courses numbered 400 or higher require at least a third year standing or permission of the Department.

Some knowledge of a language other than English is recommended.

Although it is not required for the General, Major and Honours programs in Linguistics, first year students who plan to undertake any of these programs are urged to enroll in 100.

#### B.A. In Linguistics

**General** — Students who begin the study of Linguistics as one of their fields in the General Program in their first or second year are advised to take 100, and then at least nine units of upper level courses in Linguistics in their third and fourth years.

Students who begin the study of Linguistics as one of their fields in the General Program of their third and fourth years should take 360 or 362 and at least six other units of upper level courses in Linguistics.

**Major** — The requirements for a Major in Linguistics are 210A and 210B, 250, 251 and 15 units of senior courses in Linguistics including at least 3 units from Linguistics 410A, 410B or 410C, 440, and 441.

**Honours** — Students who wish to take an Honours program in Linguistics begin the program in the third year with the permission of the Department. Honours students must: (a) achieve at least a B average in all Linguistics courses taken in each of the third and fourth years and maintain a second class average in all work of the third and fourth years; (b) present 21 units of upper level Linguistics courses including 410A and 410B or 410C, 440, 441 and 499.

Students who meet the above requirements will be recommended for Honours degrees as follows. Successful completion of all prescribed courses together with the following graduating average: First Class Honours, 6.50 or higher, and a letter grade of at least A- in Linguistics 499

(Honours Thesis); Second Class Honours, 3.50 to 6.49, and a letter grade of at least B in 499. All Honours students are required to submit their proposals for Honours thesis research at the beginning of their final year. An Honours student with a first class graduating average, but with a grade less than A- in 499, will be given the option of receiving a Second Class Honours or a First Class Major degree.

#### B.A. in Applied Linguistics (Emphasis on teaching English as a Second Language)

##### Major

##### First and Second Years

Required Courses: 210A & 210B, 250, 251; 4½ units of first and second year English courses including ENGL 115 or 215; PSYC 100. Six units in a second language of which three units should normally be at the second year level.

##### Third and Fourth Years

Required Courses: 374, 375, 376, 388 or 389, 410A, 440; and 6 units selected from 369, 370, 373, 378, 386, 390, 392 or 393, 395 (15 units). 376 will normally be taken in the final year of study.

Corequisite Courses: Three units selected from upper level English or Creative Writing in consultation with the Department.

Recommended Electives: Three units selected from Education-B 342, 343, 360, 361, 435.

##### Honours

In addition to the requirements for the Major, the Honours student must present 410B or 410C, 441, and 499 for a total of 21 units of upper level Linguistics courses. The regulations regarding the required level of achievement and the class of Honours awarded are the same as those stated above for the B.A. in Linguistics.

Notes: 1. The B.A. degree in Applied Linguistics will prepare the individual for teaching English as a second language in many foreign countries and in Canadian programs existing outside the public school system.

2. The B.A. in Applied Linguistics does not qualify students to teach in the schools of British Columbia. Those who wish to be teachers in the British Columbia school system must either hold an Education degree or have successfully completed the professional program for graduates offered by Education faculties in the Province. (For particulars, see page 154.)

#### B.Sc. in Linguistics

##### Major

##### First and Second Years

Required Courses: 210A and 210B, 250, 251; BIOL 150 or 207 and PE 141; MATH 100 and 101 (or 102 and 151 with permission of the Department); 3 units from PHYS 100, 102, 110, 120, 220; PSYC 100 and 201.

Recommended Electives: CSC 100, 110, 115; PE 241A and 241B (prerequisite 141); PHYS 214; PSYC 215A or 215B, 235; course(s) in a second language.

##### Third and Fourth Years

Required Courses: 369, 370, 380, 381, 382, 383; three units selected from 410A, 410B or 410C, 440, 441, and three additional units of Linguistics courses numbered upwards of 300, selected from the B.Sc. list in consultation with the Department (15 units).

Corequisite Courses: PSYC 300A and 4½ units selected from PSYC 300B, 313, 315, 317, 335 or 337, 371, 415.

##### Honours

In addition to the requirements for the Major, the Honours students must present all of 410A, 410B or 410C, 440, 441 and 499 for a total of 21

units of upper level courses. The regulations regarding the required level of achievement and the class of Honours awarded are the same as those stated above for the B.A. in Linguistics.

Notes: 1. The B.Sc. in Linguistics is a suitable preparation for post-graduate study in the Speech and Hearing Sciences and for advanced studies in Psycholinguistics and the Phonetic Sciences.

2. A General program leading to a B.Sc. Degree is not available.

#### Diploma in Applied Linguistics (Emphasis on teaching English as a Second Language)

1. Applicants must have completed a University of Victoria Bachelor's degree or its equivalent including at least 6 units of courses in English and 6 units of second language courses.
2. Applicants whose previous instruction was given in a language other than English will normally be required to have a major in English.
3. The program may be completed within one year of full time study, but could also be taken part time. It must be completed within five years. For part time students, 376 will normally be taken in the final year of study.
4. A minimum of 15 units of course work in addition to those credited towards a degree is required to complete the program. Applicants who have received credit for some of these courses (or equivalent) previously will be allowed to substitute up to six units of courses recommended by the Department. Students whose degrees are from universities other than the University of Victoria must complete the entire 15 units at the University of Victoria. Students with a University of Victoria degree may negotiate to have transfer credit from other universities apply to the Diploma program.
5. Courses (15 units)
  - a. 250, 374, 375, 376, 388 or 389.
  - b. Six units from 369 or 370 or 373; 378; 386; 390 or 392 or 393; 395; or 7½ units including 360.
  - c. One of ED-B 342, 343, 349, 436, -D 337.
6. Those who intend to pursue an M.A. degree in Applied Linguistics should select 7½ units from section B, including 360 which should be taken on entering the program, for a 16½ unit Diploma program.
7. Students who have completed the University of Victoria degree in Applied Linguistics or its equivalent may not register in the Diploma Program.
8. Those who wish to be teachers in the British Columbia school system must either hold an Education degree or have successfully completed the professional program for graduates offered by Education faculties in the province. (For particulars, see page 154).

### UNDERGRADUATE COURSES

NOTE: The following courses are acceptable for either the B.A. or the B.Sc. degree; 210A and 210B, 250, 251, 369, 370, 373, 380, 381, 382, 383, 386, 410A, 410B, 410C, 440, 441 482, 483, 484, and 485.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**LING 099 (0) ENGLISH AS A SECOND LANGUAGE** (3 fee units)  
A noncredit course in English as a Second Language for students whose native language is not English — see page 12 for regulations governing such students. Those who fail 099 in the first term must repeat the course in the second term. (Grading: Com, N, F) FS(3-0)

#### LING 100A (formerly half of 100) (1½) INTRODUCTION TO LINGUISTICS: I

An introduction to the subject matter of language and linguistics. Topics studied will include the nature of language through an overview of sound systems, word structures, writing systems, meaning and lexical sets, and sentence structure. (Knowledge of a language other than English not necessary) (Not open to students registered in or having credit in 101 or 360) B.P. Harris, T.M. Hess FS(3-0)

#### LING 100B (formerly half of 100) (1½) INTRODUCTION TO LINGUISTICS: II

A more detailed examination of the topics covered in 100A as applied to the study of language in society, and language and mind. Ancillary topics include traditional languages, languages of British Columbia, dialectology, language evolution, deaf communication, and language acquisition. (Prerequisite: 100A or the equivalent) (Not open to students with credit in 101 or 360) T.M. Hess, B.P. Harris S(3-0)

#### LING 120 (1½) PRINCIPLES OF PHONOLOGY

Basic principles and techniques of phonological analysis. Students learn how to describe and write the sounds of language. (Prerequisite: Competence in one of the Native Indian languages of British Columbia. This course is offered as part of the Native Indian Language Program.) NO(3-0)

#### LING 121 (1½) PRINCIPLES OF MORPHOLOGY AND SYNTAX

Basic principles and techniques of morphological and syntactic analysis. Students study the ways in which words and sentences are formed. (Prerequisite: 120. This course is offered as part of the Native Indian Language Program.) NO(3-0)

#### LING 122 (1½) PHONOLOGICAL ANALYSIS

The application of principles and techniques of linguistic analysis to the phonologies of Native Indian languages. Students use their knowledge of linguistics to describe the sounds of their languages in order to devise practical orthographies. (Prerequisite: Competence in one of the Native Indian languages of British Columbia. This course is offered as part of the Native Indian Language Program.) NO(3-0)

#### LING 123 (1½) GRAMMATICAL ANALYSIS

The application of the principles and techniques of linguistic analysis to the morphology and syntax of Native Indian languages. Students apply their knowledge of linguistics to the description of words and sentences of their languages. (Prerequisite: 122. This course is offered as part of the Native Indian Language Program.) NO(3-0)

#### LING 124 (1½) DISCOVERY PROCEDURES: I

This course explores ways of gathering and analyzing language materials, including the use of tape recorders, field notes and card files. Work on special topics, such as the names of plants, animals or places and cultural activities such as fishing or food preparation, will be encouraged. A variety of resources will be used, including the student's knowledge of his language and culture, and, if available, other speakers or tape recordings. (Prerequisite: Competence in one of the Native Indian languages of British Columbia. This course is offered as part of the Native Indian Language Program.) NO(3-0)

#### LING 125 (1½) DISCOVERY PROCEDURES: II

The analysis of texts, such as traditional stories, histories and cultural descriptions is emphasized. Students will work with available materials, transcribing texts, preparing glossaries and, if possible, gathering further information from native speakers. (Prerequisite: 124. This course is offered as part of the Native Indian Language Program.) NO(3-0)

#### LING 126 (1½) PEDAGOGICAL GRAMMARS OF AMERINDIAN LANGUAGES

The application of linguistic principles to the preparation of grammars of languages indigenous to British Columbia. (Prerequisite: Competence in one of the Native Indian languages of British Columbia. This course is offered as part of the Native Indian Language Program.) NO(3-0)

#### LING 127 (1½) AMERINDIAN LEXICOGRAPHY

The application of linguistic and ethnoscientific principles to the preparation of dictionaries of languages indigenous to British Columbia. (Prerequisite: 126. This course is offered as part of the Native Indian Language Program.) NO(3-0)

#### LING 201 (1½) SALISH: I

An introduction to the linguistic structures of one of the major language families in British Columbia presented through reading and translating myths and ethnographic texts of a selected member language. All texts are also presented orally. In addition to grammar and lexicon, some time is devoted to a consideration of the culture reflected in the texts. Differences between oral and written literature are also discussed. (Prerequisite: None; 100B recommended) T.M. Hess F(3-0)

#### LING 202 (1½) SALISH: II

The content of this course will vary. In some years it will involve a deeper analysis of the 201 language; in others it will be the same format as 201 presented for a second Salish language. (Prerequisite: 201) T.M. Hess S(3-0)

#### LING 210A (formerly half of 210) (1½) MORPHOLOGY AND SYNTAX: I

Techniques and theory in the analysis of words (morphology) and sentences (syntax), utilizing data from a wide variety of languages. Topics

include basic morphological analysis, syntactic analysis and the grammatical systems of various languages (including English). This course will be of special interest to students who wish to study techniques of language analysis, especially those in Linguistics and Anthropology who may wish to work with languages not previously given to grammatical analysis. (*Prerequisite:* None; 100 or 101 recommended)

F(3-0)

### LING 210B (formerly half of 210) (1½) MORPHOLOGY AND SYNTAX: II

An introduction to formal theories of syntax and lexicon. Major syntactic structures of English will be analyzed in a transformational model. Analogous constructions in other languages will be examined for comparison and contrast. This course is a prerequisite to Linguistics 410A. (*Prerequisite:* 210A)

S(3-0)

### LING 221 (3) FIELD RESEARCH FOR LANGUAGE LESSONS

This course considers various techniques of gathering linguistic and cultural information from knowledgeable elders and the art of utilizing this information for lessons on language and culture. (*Prerequisite:* Completion of the first year of Native Indian Language Teacher Training program)

NO(3-0)

### LING 222 (3) COMPILING SCHOOL DICTIONARIES FOR NATIVE LANGUAGES

This course treats problems unique to compiling dictionaries of Native languages with special emphasis on lexicons for school use. Each student develops a short dictionary as a model in his language during the year. (*Prerequisite:* Completion of first year of Native Indian Language Teacher Training program)

NO(3-0)

### LING 250 (1½) PHONETICS

An investigation of the production and nature of speech sounds commonly occurring in languages of the world. The course will provide practice in recognizing, transcribing and producing such sounds. Preliminary study of the ways in which sound systems are structured. (*Prerequisite:* None; 100 recommended)

G.N. O'Grady

F(3-0)

### LING 251 (1½) PHONOLOGY

The course deals with the overall organization and function of sound systems, with an investigation of their variety and of the universal features which unite them. (*Prerequisite:* 250 or permission of the Department) (Not open to students with 3 units of credit in 250)

G.N. O'Grady

S(3-0)

### LING 260 (JAPA 260) (1½) INTRODUCTION TO THE JAPANESE LANGUAGE AND LINGUISTICS

A general introduction to the synchronic and diachronic descriptions of Japanese; subjects covered may include: phonology, morphology, syntax, semantics, historical changes, poetics, dialectology, orthography, the sociolinguistic and psycholinguistic aspects of Japanese, the relationship between Japanese language, thought, and culture, and the history of Japanese linguistics. (Previous knowledge of Japanese not necessary)

NO(3-0)

### LING 340 (SLAV 340) (1½) INTRODUCTION TO THE SLAVIC LANGUAGES (In English)

This course will acquaint students with the family of Slavic languages, their history and place within the Indo-European language family, and their present day structure. (*Prerequisite:* A previous course in Linguistics or permission of the Department)

NO(3-0)

### LING 341 (SLAV 341) (1½) SEMINAR IN A SLAVIC LANGUAGE: STRUCTURE AND HISTORY (In English)

Although designed as a continuation of 340 (SLAV 340), this course can be taken independently as well, and more than once for credit (in different languages) to a maximum of three units. This course will deal with the history and structure of a Slavic language not offered otherwise in the Department of Slavonic Studies. Depending upon demand, a different language will be treated in each given year. Languages offered at present are: Sorbian, Polish, Ukrainian, Czech. (*Prerequisite:* A previous course in Linguistics or permission of the Department)

G.H. Schaarschmidt

F(3-0)

### LING 360 (3) GENERAL LINGUISTICS

An introductory course intended for senior students with no previous training in the subject. The principal topics treated are phonology, morphology, and syntax in light of modern linguistic theory. (Credit will not

be given for this course as well as for 100, 101, or 362.)

J. Arthurs

Y(3-0)

### LING 361 (3) ANTHROPOLOGICAL LINGUISTICS

Language in relation to culture, semantics, and as an ethnographic tool. Intended for students with no previous knowledge of Linguistics. (Not open to students who have credit in or who are taking 100 or 101) (*Prerequisite:* An introductory course in Anthropology)

NO(3-0)

### LING 362 (3) INTRODUCTION TO GENERAL LINGUISTICS (In French)

An introductory course for senior students with attention focused on contemporary approaches to topics such as the production and interpretation of sounds in natural languages (phonetics and phonology), structure of words (morphology), phrase and sentence structure (syntax) and aspects of meaning (semantics). Additional topics will deal with social and historical aspects of languages and their use. (*Prerequisites:* none; a good knowledge of oral and written French is indispensable) (Credit will not be given for this course as well as for 100, 101, or 360)

J. Arthurs

Y(3-0)

### LING 364 (PACI 364) (1½) LANGUAGES IN THE PACIFIC AREA

A survey of languages spoken on the islands of the Pacific Ocean (Indonesia, Philippines, Melanesia, Micronesia and Polynesia), their genetic relationships and area groupings; specific languages and families are selected for more detailed discussion, illustrating issues of relevance in linguistic theory and analysis, applied linguistics and sociolinguistics. (*Prerequisite:* None; 100 recommended)

NO(3-0)

### LING 365 (PACI 365) (1½) SEMINAR ON A PACIFIC AREA LANGUAGE: STRUCTURE, CONTEXT AND USAGE

This course deals each time with a different specific language spoken in Pacific Asia (except for Mandarin Chinese and Japanese) and on the Pacific Islands. Topics covered include phonological and grammatical structure, genetic relationships to others of its family, social and cultural context, political importance, use in the mass media and education, literature in the language, and the problems of language policy and planning. The language considered in a given term may be Korean, Tagalog, Chamorro, Palauan, Ainu, Tongan, Hawaiian, Samoan, Cantonese, Fijian, pidgin English and so on. May be repeated for credit up to a maximum of six units. (*Prerequisite:* 100 or 364 or PACI 364)

NO(3-0)

### LING 369 (PSYC 369) (formerly half of 370) (1½) DEVELOPMENTAL PSYCHOLINGUISTICS

Offered in collaboration with the Department of Psychology. The course covers the biological bases of language, the child's stage by stage acquisition of the phonology, morphology, syntax and semantics of his first language. Also treated are the child's metalinguistic abilities and his growing awareness of the form and function of speech acts. (*Prerequisite:* A previous course in Linguistics and PSYC 100)

J.. Kess, R.A. Hoppe

S(3-0)

### LING 370 (PSYC 370) (1½, formerly 3) PSYCHOLINGUISTICS

Offered in collaboration with the Department of Psychology. A course in the psychology of language covering such topics as the nature and function of language, experimental psycholinguistics, the relationship of language and cognition, speech perception and processing, comprehension and production of sentences, utilization of semantic systems, bilingualism, and nonverbal communication, language and sociocultural factors. (*Prerequisite:* A previous course in Linguistics and PSYC 100)

J.F. Kess, R.A. Hoppe

F(3-0)

### LING 372 (1½) NATIVE LANGUAGES OF BRITISH COLUMBIA

This course surveys the semantic, phonological and morphological structure of thirty languages belonging to five different language families having among them greater linguistic diversity than is to be found in the whole of Europe, and discusses hypotheses of their history. (*Prerequisite:* A previous course in Linguistics) Text: Thomas and Hess, *An Introduction to Nitinaht Language and Culture*

NO(3-0)

### LING 373 (1½) APPLIED PSYCHOLINGUISTIC TECHNIQUES OF LANGUAGE LEARNING AND TEACHING

A survey of techniques applied to the problems of second language learning and teaching. These techniques, derived from applied psycholinguistic investigations, examine the nature of language, language learning abilities, and second language acquisition by adults. NO(3-0)

**LING 374 (1½) APPLIED LINGUISTICS**

Explores and demonstrates the relevance of theoretical linguistics, psycholinguistics, sociolinguistics and contrastive analysis to teaching and learning of language; introduction to approaches and methods in language teaching, curriculum development, error analysis, testing. (*Prerequisite*: A previous course in Linguistics or permission of the Department)

J.H. Esling

F(3-0)

**LING 375 (1½) TECHNIQUES IN APPLIED LINGUISTICS**

With special reference to teaching English as a second language, this course addresses problems such as course design, preparation and evaluation of pedagogical materials, selection of a curriculum, construction of a syllabus and lesson plans, classroom teaching techniques, and the use of audio-visual materials. Reassessment of the theoretical principles discussed in 374. (*Prerequisite*: 374 or permission of the Department)

S(3-0)

**LING 376 (1½) SEMINAR AND PRACTICUM IN APPLIED LINGUISTICS**

This course consists of a series of seminars dealing with teaching English as a second language methodology, observation of English as a second language classes, and participation by the students in English as a second language class instruction as arranged by the Department. Evaluation is based on one essay or report, a log covering observation of classes, participation in the seminars and classroom teaching, and on the successful completion of the student teaching practicum. (Normally taken in the final year. Open only to students registered in the Applied Linguistics programs. Students who are scheduled to complete the practicum during May-August will be given a grade of INP at the end of April.) (*Pre-or corequisite*: 374 and 375 which may be taken concurrently)

J.H. Esling

Y(1-2)

**LING 378 (1½) CONTRASTIVE LINGUISTICS**

An introduction to the contrastive study of languages with respect to their phonological, morphological, syntactic and semantic systems. Special attention is also given to factors related to language learning situations, with reference to transfer and interference from the mother tongue. The language selected to be compared with English will vary from year to year. (*Prerequisite*: A previous course in Linguistics) Texts: Selected readings on the theory of contrastive analysis.

J. Arthurs

F(3-0)

**LING 380 (1½) ACOUSTIC PHONETICS**

A study of the acoustical properties of speech sounds including the basic physical principles involved in the generation and propagation of sound energy and the phenomenon of resonance; students are introduced to experimental instruments and trained in the use of the sound spectrograph for the analysis of speech sounds. (*Prerequisites*: 250 or equivalent)

C. Dickson

F(2-2)

**LING 381 (1½) PHYSIOLOGY OF SPEECH PRODUCTION**

A study of the physiology of the human speech mechanisms including the relevant aspects of the respiratory, laryngeal and supralaryngeal systems. (*Prerequisite*: 250)

F(2-2)

**LING 382 (1½) EXPERIMENTAL PHONETICS**

This course expands on topics covered in Linguistics 380. Emphasis is placed on the design of phonetic and phonological experiments using electronic systems and introducing computer technology for speech analysis. (*Prerequisite*: 380)

C. Dickson

S(2-2)

**LING 383 (1½) AUDITORY PHONETICS**

A study of the perception of speech sounds in terms of the physiology of the organs of hearing with attention being focused on the hearing mechanism as a transducer of acoustical energy to neural impulses. Students are also introduced to speech perception research methodology. S(2-2)

**LING 386 (1½) PROSODIC FEATURES OF ENGLISH**

Detailed analysis of the stress and intonation patterns of English and their relationship to grammatical functions; phonetic descriptions of rhythm and voice quality are practised and used to analyze speech in various languages. (*Prerequisite*: 250, 251, or permission of the Department)

J.H. Esling

S(3-0)

**LING 388 (1½) AN INTRODUCTION TO THE GRAMMAR OF ENGLISH USAGE**

A basic functional treatment of the grammar of English, with special emphasis on standard Canadian English usage. The parts of speech and their functional relations will be examined.

B.P. Harris

F(3-0)

**LING 389 (1½) AN ADVANCED GRAMMAR OF ENGLISH USAGE**

An examination of the more complex structures of English grammar and their use as functional units at various levels of spoken and written Canadian English. Topics may include stylistic variation and the formal differences between Canadian and British or American usage. (*Prerequisite*: 388 or permission of the Department)

B.P. Harris

S(3-0)

**LING 390 (1½) THE GROWTH OF MODERN ENGLISH**

The linguistic history of the English language from its Proto-Indo-European origins to the present, including non-British English (especially Canadian). Topics will include the causes of language change, the development of the phonological, morphosyntactic and lexical systems of English, and the significance of social and regional dialects. (Not open to students who have credit in ENGL 390 or 440). (*Prerequisite*: A previous course in Linguistics or permission of the Department)

B.P. Harris

S(3-0)

**LING 392 (1½) CANADIAN ENGLISH**

A description of the distinctive features of modern Canadian English, especially in vocabulary, grammar and pronunciation, and an account of the economic, social, and political factors that have given rise to those features. (*Prerequisite*: A previous course in Linguistics, or permission of the Department). Texts: Scargill, *Short History of Canadian English*, McConnell, *Our Own Voice*

NO(3-0)

**LING 393 (1½) DIALECTOLOGY**

Dialect geography and its methodology with reference to English dialects including regional variation in Canada. (*Prerequisite*: A previous course in Linguistics or permission of the Department; 392 recommended)

NO(3-0)

**LING 395 (1½) SOCIOLINGUISTICS**

A study of language in its social context. Attention is paid to linguistic, dialectal, and stylistic variation in speech communities and the relationship to sociocultural considerations such as class, sex, contextual setting, and ethnicity. Some consideration is given to sociolinguistic dimensions of bilingualism and multilingualism, languages in contact, language switching, and linguistic demography, nonstandard dialects and language standardization, and related educational issues. Consideration will also be given to the functions of language in speech communities, for example, rules of respectful address, conversational turn taking, and the range and interpretation of speech act types. Sociolinguistic implications for theories of language description and language change will be touched upon. (*Prerequisite*: A previous course in Linguistics or permission of the Department)

B.P. Harris

F(3-0)

**LING 408 (1½) ADVANCED MORPHOLOGY**

Survey of current theoretical models used to account for the generation of words in English and other languages. Emphasis will be on derivational morphology, especially compounding. Scope will include the role of phonology in morphological theory, the treatment of reduplication in word building, the use of rule formalisms, and the nature of lexical representations. (*Prerequisites*: 210B and 251)

B.F. Carlson

S(3-0)

**LING 410A (1½) SYNTAX**

Major syntactic structures of English will be analyzed in the Government and Binding model. Topics include X bar grammar and the lexicon, case, formal properties of transformations and constraints on binding. (*Prerequisites*: 210B and 251, or Diploma status and 360)

F(3-1)

**LING 410B (1½) THEORIES OF GRAMMAR**

A nontransformational formal model of syntactic description will be examined in light of the material presented in 410A. Topics may include the lexicon, grammatical relations, phrase structure grammars, syntax and the mapping into logical form. (*Prerequisite*: 410A)

S(3-1)

**LING 410C (1½) MATHEMATICAL LINGUISTICS**

This course is designed to give the student literacy in certain formal

systems relevant to theoretical linguistics. Topics include formal logic, set theory, recursive functions, formal languages, formal properties of natural language. Certain formal properties of contemporary syntactic theories will be examined late in the course. This course presupposes knowledge of some current syntactic theory (e.g., Government-Binding theory). (Course requirements for Honours and Majors will allow this course to substitute for 410B) (Prerequisite: 210B) NO(3-1)

#### LING 420 (1½) COMPARATIVE INDO-EUROPEAN

This course provides an integrated account of the evolution of the principal Indo-European languages. (Prerequisite: 210B and 251, or permission of the Department) NO(3-0)

#### LING 425 (1½) HISTORICAL AND COMPARATIVE LINGUISTICS

An investigation of language change through time. Theoretical considerations in the reconstruction of phonological and other linguistic subsystems. Emphasis will be on the evolution of languages other than Indo-European. (Prerequisites: 210B and 251, or permission of the Department) S(3-0)

#### LING 426 (1½) SEMANTICS

The course addresses the question of meaning and its relation to language. Topics include the concept of the dictionary, types of meaning, uses and abuses of semantic values, analysis of meaning, translation. (Prerequisite: 210B or equivalent background) NO(3-0)

#### LING 440 (1½) GENERATIVE PHONOLOGY OF ENGLISH

This course will emphasize description of the English sound system using procedures and theoretical bases of transformational generative phonology. It is intended for students who have had an introduction to phonology and who wish to learn language description using distinctive sound features, notational conventions, and rule interaction formalisms. (Prerequisite: 251 or permission of the Department or Diploma status and 360) B.F. Carlson F(3-0)

#### LING 441 (1½) ADVANCED PHONOLOGICAL ANALYSIS

This course will survey current issues in phonological theory. Special topics, such as the question of abstractness of underlying representations, the effect of historical change on the sound component of language, the role of grammatical and lexical information in phonology, the treatment of exceptions, and the ways of handling rule interactions and applications will be considered. (Prerequisite: 440 or permission of the Department) Text: Kenstowicz and Kisseberth, *Topics in Phonological Theory* B.F. Carlson S(3-0)

#### LING 448 (1½) DIRECTED READINGS IN LINGUISTICS

(Open only to Major and Honours students with a minimum G.P.A. of 6.50 in Linguistics courses.) F(3-0)

#### LING 449 (1½) DIRECTED READINGS IN LINGUISTICS

(Open only to Major and Honours students with a minimum G.P.A. of 6.50 in Linguistics courses.) S(3-0)

#### LING 450 (1½) SEMINAR IN LANGUAGES

An elementary analysis of a language to be selected in consultation with the Department. (Prerequisites: 210B and 251) NO(3-0)

#### LING 451 (1½) SEMINAR IN LANGUAGES

An elementary analysis of a language to be selected in consultation with the Department. (Prerequisite: 210B and 251) NO(3-0)

#### LING 482 (formerly part of 481) (1½) COMPUTATIONAL LINGUISTICS: AN INTRODUCTION

An introduction to the applications of the computer to linguistic problems. (This course is prerequisite to 483, 483, 485) (Prerequisite: Written permission of the Department required for students not registered in a Linguistics degree program) A. Brett F(3-0)

#### LING 483 (formerly part of 481) (1½) COMPUTATIONAL LINGUISTICS: QUANTITATIVE METHODS

The application of the computer to the analysis of linguistic data in such areas as phonetics and dialectology. (Prerequisite: 482. A previous course related to phonetics or dialectology recommended) A. Brett S(3-0)

#### LING 484 (1½) COMPUTATIONAL LINGUISTICS: GRAMMARS

The application of computing methods to contemporary theories of natural language. (Prerequisites: 210B and 481 or 482) NO(3-0)

#### LING 485 (1½) COMPUTATIONAL LINGUISTICS: PHONOTACTICS

The application of phonetic and phonological theory to computerized speech synthesis and recognition. (Prerequisites: 382, and 481 or 482 or the equivalent of CSC 115) NO(3-0)

#### LING 499 (3) HONOURS THESIS

The Honours thesis is to be based on supervised research carried out by the student during the final year. The recommended style and format of the Honours thesis are the same as those stipulated for graduate theses.

### GRADUATE COURSES

*Students should consult the Department concerning courses offered in any particular field.*

#### LING 500 (3) FIELD METHODS AND TECHNIQUES IN LANGUAGE ANALYSIS

The study of field methods and techniques in language analysis with the aid of native speakers. (Prerequisite: 410B and 441 or equivalents) NO(3-0)

#### LING 501 (1½) CANADIAN ENGLISH

A history of the phonology, syntax, and vocabulary of Canadian English. (Prerequisite: 392 or equivalent) NO(3-0)

#### LING 502 (1½) LINGUISTIC THEORIES

An introduction to the principles and methodological techniques of linguistic theories of language analysis other than the generative-transformational approach. NO(3-0)

#### LING 503 (1½) TRANSFORMATIONAL-GENERATIVE GRAMMAR

A survey of recent developments in transformational-generative semantic-syntactic theory. (Prerequisite: 410 or equivalent) F(3-0)

#### LING 505 (1½) PHONOLOGICAL THEORY

A survey of the development of phonological theory, including such topics as phonological universals. (Prerequisite: 441 or equivalent) G.N. O'Grady F(3-0)

#### LING 506 (1½) LEXICOLOGY AND LEXICOGRAPHY

The theory of lexicology and the practice of dictionary making. NO(3-0)

#### LING 508 (1½) CURRENT ISSUES IN TRANSFORMATIONAL-GENERATIVE GRAMMAR

Selected topics reflecting ongoing work in transformational-generative theory. (Prerequisite: 503 or equivalent) S(3-0)

#### LING 509 (1½) SOCIOLINGUISTICS

Selected topics in recent research related to language variation. NO(3-0)

#### LING 510 (1½) CURRENT ISSUES IN PHONOLOGY

An examination of recent developments in phonological theory. (Prerequisite: 505 or equivalent) B.F. Carlson S(3-0)

#### LING 513 (1½) PROBLEMS IN GRAMMATICAL ANALYSIS

Special studies selected on an individual basis to allow a student to pursue a particular topic in grammatical analysis. (Prerequisite: 508 which may be taken concurrently or permission of the Department) NO(3-0)

#### LING 515 (1½) PROBLEMS IN PHONOLOGICAL ANALYSIS

Special studies selected on an individual basis to allow a student to pursue a particular topic on phonological analysis. (Prerequisite: 510 which may be taken concurrently, or permission of the Department) NO(3-0)

#### LING 517 (1½) EXPERIMENTAL PHONETICS LABORATORY

Topics in the synthesis and analysis of speech. (Prerequisite: 380 or equivalent) NO(3-0)

#### LING 518 (1½) PROJECTS IN EXPERIMENTAL PHONETICS

Students will be guided in designing and carrying out experiments on an individual basis in the area of the acoustics and physiology of speech. (Prerequisite: 517 or equivalent) NO(3-0)

**LING 520 (1½) PACIFIC RIM LANGUAGES**

An overview of the structure of selected indigenous languages spoken around the Pacific Rim. One of the following will be offered in a given term: 520-A (1½) North American Indian Languages; 520-B (1½) Austronesian Languages; 520-C (1½) Australian Languages; 520-D (1½) East Asian Languages. NO(3-0)

**LING 524 (1½) ROMANCE LINGUISTICS**

Recent developments in comparative Romance linguistics; particular emphasis will be placed on contrastive features. NO(3-0)

**LING 527 (1½) HISTORICAL AND COMPARATIVE LINGUISTICS: INDO-EUROPEAN**

An investigation of language change through time. Theoretical considerations in the reconstruction of phonological and other linguistic subsystems. An integrated account of the evolution of the principal Indo-European languages. G.N. O'Grady S(3-0)

**LING 528 (1½) HISTORICAL AND COMPARATIVE LINGUISTICS: NON-INDO-EUROPEAN**

An investigation of evolution of languages other than Indo-European. NO(3-0)

**LING 560 (Anthropology 560) (1½) LINGUISTIC ANTHROPOLOGY**

NO(3-0)

**LING 570 (PSYC 570) (1½-3) PSYCHOLINGUISTICS**

A seminar offered in collaboration with the Department of Psychology. Selected topics of interest in understanding the comprehension and production of natural language are examined. The most recent topics have been sentence processing, discourse analysis, linguistic inference and the resolution of ambiguity, and the development of cognitive science interests in reasoning and discourse processes as well as the structure of mental representations.

J.F. Kess, R.A. Hoppe

F(3-0)

**LING 571 (PSYC 571) (1½ or 3) DEVELOPMENTAL PSYCHOLINGUISTICS**

A seminar offered in collaboration with the department of Psychology. Selected topics of interest in understanding the acquisition of the child's first language in the areas of phonological and grammatical abilities, as well as the child's knowledge of semantic systems and discourse rules. Recent topics have been the development of conversational abilities in children, including turn taking, questioning and answering, and politeness and negotiation in speech acts.

J.F. Kess, R.A. Hoppe

S(3-0)

**LING 574 SEMINAR IN APPLIED LINGUISTICS**

A survey of second language learning and teaching theory and TESL/TEFL methodology with emphasis on adult, college and university, and overseas student populations. Evaluation of research and applications as related to socio- and psycholinguistic principles and to adult second language acquisition in natural settings.

J.H. Esling

F(3-0)

**LING 580 (1½ or 3) LINGUISTICS SEMINAR**

(The contents of this course will vary.) (May be repeated for credit) F(3-0)

**LING 581 (1½ or 3) LINGUISTICS COLLOQUIUM**

Students will prepare a written research paper (20-30 pages) and present it at a linguistics colloquium. Topics will be of current interest, bearing on linguistic theory, arising from the student's work or individual research. (May be repeated for credit) (Prerequisite: Graduate standing) FS

**LING 586 (1½) PHONETICS FOR APPLIED LINGUISTICS**

An investigation of the relationship between phonetics instruction, pronunciation teaching, and second language acquisition theory. Students will become familiar with traditional methods and current issues in the teaching of phonetics, the integration of speech technology techniques, and the role and place of pronunciation teaching in the development of second language teaching approaches.

J.H. Esling

S(3-0)

**LING 590 (1½ or 3) DIRECTED STUDIES**

A course designed to enable students to pursue individual interests. (May be repeated for credit)

**LING 597 (0) COMPREHENSIVE EXAMINATION**

(Grading: INP, Com, N or F)

**LING 599 (Credit to be determined) THESIS**

Students enrolled in courses numbered 601 to 603 will explore current areas of research in the Linguistics literature, under the direction of their supervisory committee and other members of the Department. Each course may be repeated to a maximum of 3 units.

(Grading: INP, Com, N or F)

**LING 601 (1½ or 3) INDIVIDUAL STUDIES IN SYNTAX**

(Prerequisites: 502, 503 or equivalent courses, and graduate standing)

**LING 602 (1½ or 3) INDIVIDUAL STUDIES IN PHONOLOGY**

(Prerequisites: 505 or an equivalent course, and graduate standing)

**LING 603 (1½ or 3) INDIVIDUAL STUDIES IN HISTORICAL LINGUISTICS**

(Prerequisites: 527 or an equivalent course, and graduate standing)

**LING 690 (1½ or 3) INDIVIDUAL STUDIES**

Topics (A, B, C, etc.) will be assigned at the beginning of each year. A research topic will be pursued in depth under the direction of the student's supervisor. Students will be expected to write a research paper (or papers) and to give an oral report to the supervisor and interested members of the Department. It is anticipated, but not required, that this research will provide background material for a Ph.D. Dissertation. This course may be repeated for credit to a maximum of 6 units. (Prerequisites: Admission to a Ph.D. program in Linguistics and 502, 503 and 505 or the equivalent)

**LING 699 (Credit to be determined) PH.D. DISSERTATION**

(Grading: INP, Com, N or F)

**DEPARTMENT OF MATHEMATICS**

C. Robert Miers, B.A. (Knox Coll.), M.A., Ph.D. (Calif., Los Angeles), Professor and Chairman of the Department  
 Ernest J. Cockayne, M.A. (Oxon.), M.Sc. (McGill), Ph.D. (Brit. Col.), Professor  
 Roger R. Davidson, B.Sc. (Queen's), M.A. (Tor.), Ph.D. (Florida St.), Professor  
 Albert E. Hurd, B.A., M.A. (Tor.), Ph.D. (Stanford), Professor  
 David J. Leeming, B.Sc. (Brit. Col.-Vic. Coll.), M.A. (Ore.), Ph.D. (Alta.), Professor  
 Robert E. Odeh, M.S., Ph.D. (Carnegie Inst. of Tech.), F.A.S.A. (Washington, D.C.), F.S.S. (London), Professor  
 Ahmed Ramzi Sourour, B.Sc., (Cairo), M.Sc., Ph.D. (Illinois), Professor  
 Hari M. Srivastava, B.Sc., M.Sc. (Allahabad), Ph.D. (Jodhpur), F.R.A.S. (London), F.N.A.Sc. (India), F.I.M.A. (U.K.), Professor  
 Pauline van den Driessche, B.Sc., M.Sc. (Imp. Coll.), D.I.C., Ph.D. (Wales) Professor

William R. Gordon, B.A., M.A. (Brit. Col.), Ph.D. (Calif., Santa Barbara), Associate Professor  
 W. Keith Hastings, B.A., M.A., Ph.D. (Tor.), Associate Professor  
 Denton E. Hewgill, B.Sc., Ph.D. (Brit. Col.), Associate Professor  
 Lowell A. Hinrichs, M.A., Ph.D. (Ore.), Associate Professor  
 Reinhard Illner, Dip. (Heidelberg), Ph.D. (Bonn), Associate Professor  
 Bruce R. Johnson, B.S., M.A., (Ore. St.), Ph.D. (Ore.), Associate Professor  
 Walter P. Kotorynski, B.A. (W. Ont.), M.A., Ph.D. (Tor.), Associate Professor  
 Robert A. MacLeod, B.Sc. (Alta.), M.S. (Cal. Tech.), Ph.D. (Alta.), Associate Professor  
 Fausto Milinazzo, B.Sc., Ph.D. (Brit. Col.), Part time Adjunct Associate Professor (1986-88)  
 Donald J. Miller, B.Sc., Ph.D. (McMaster), Associate Professor  
 Gary G. Miller, M.Sc., Ph.D. (Missouri), Associate Professor

William E. Pfaffenberger, M.A., Ph.D. (Ore.), Associate Professor  
 William J. Reed, B.Sc., (Imperial Coll., London), M.Sc. (McGill), Ph.D. (Brit. Col.), Associate Professor  
 James Riddell, B.Sc., M.Sc., Ph.D. (Alta.), Associate Professor  
 Earl D. Rogak, B.Ch.E. (Cooper Union), M.S.E., Ph.D. (Mich.), P.Eng., Associate Professor  
 Charles E. Murley, B.A. (Colo.), M.S., Ph.D. (Wash.), Assistant Professor  
 Marilee V. Garrett, B.A. (Brown), M.Sc. (U. of Vic), Cooperative Education Coordinator (Computer Science and Mathematics)  
 M. Elizabeth Watton, B.Sc., M.Sc. (McMaster), Administrative Officer and Part-time Lecturer

## GRADUATE PROGRAMS

For information on studies leading to the M.A. and M.Sc. degrees, see page 227; for graduate courses, see page 110.

NOTE: Undergraduate and graduate courses presently labelled CSC are now part of the Department of Computer Science. For further information on courses and programs, consult the Department.

## LIMITATION OF ENROLLMENT

Students are advised that, because of limited facilities and staff, it may be necessary to limit enrollment in certain first and second year Mathematics and Statistics courses. Enrollment limits in second year will be imposed primarily on the basis of academic standing. Course enrollment limits will be listed during registration.

## GENERAL, MAJOR AND HONOURS PROGRAMS

### Mathematics Programs:

For either a B.A. or B.Sc. degree in Mathematics, students may take a General, Major or Honours Mathematics program. The Mathematics course requirements for each program are as follows:

#### General

- (a) 100 and 101
- (b) 233A and 233C
- (c) 200 and 201
- (d) 9 additional units of courses numbered 300 or higher in the Department.

#### Major

- (a) 100 and 101
- (b) 233A and 233C
- (c) Two of CSC 110, 112 and 115
- (d) 200 and 201
- (e) 330A and 330B, 333A and one of 333C, 422 or 423
- (f) 9 additional units of Mathematics or Statistics courses numbered 300 or higher (of which at least 3 units are numbered 400 or higher) chosen in consultation with the Department.

NOTE: Major students are encouraged to take at least 3 units of Statistics courses.

#### Major with Probability and Statistics Emphasis

- (a) 100 and 101
- (b) 233A and 233C
- (c) Two of CSC 110, 112 and 115
- (d) 200 and 201
- (e) STAT 250 and 251
- (f) 330A and 330B
- (g) 333A and 333C
- (h) STAT 350 and 351
- (i) 6 additional units chosen from 352, 452, STAT 353, 354, 453, 454 selected to obtain at least 3 units chosen from Mathematics and Statistics courses numbered 400 or higher.

#### Honours in Mathematics

Students who wish to be admitted to an Honours program in the Department should apply in writing to the Chairman of the Department on completion of their second year. Normally a student will be admitted to the third year of an Honours program in the Department only if the student has achieved a first class average in the second year courses taken in the Department. A student whose third year work is not of honours calibre may be required to withdraw from the program. A student graduating in the Honours program will be recommended for a First Class Honours degree if the student has achieved a first class gradu-

ating average and a first class average in courses numbered 300 or higher in the Department. A student who completes the Honours degree requirements without attaining a first class standing, but with a graduating average of at least 3.50, will be recommended for a Second Class Honours degree.

The Honours Programs are as follows:

- (a) 100 and 101
- (b) 233A and 233C
- (c) Two of CSC 110, 112 and 115
- (d) 200 and 201
- (e) 333A and 333C, 334, 336, 338
- (f) Completion of one of the following areas of emphasis:
  - (i) *Pure Mathematics*
    - a. 15 units from 325, 326, 352, 362, 422, 423, 433C, 435, 445A and 445B, 452, 462, 465, 466, 468, 491A, and 491B and CSC 349A and 349B, chosen in consultation with the Department and of which at least 9 units are numbered 400 or higher.
  - (ii) *Applied Mathematics*
    - a. 12 units acquired by completing any two of the four area options listed.
      - Combinatorics and Operations Research Option: 422, 423, CSC 448A, 448B
      - Differential Equations Option: 325, 326, 445A, 445B
      - Mathematical Statistics and Probability Option: STAT 350, 351, MATH 352, 452
      - Numerical Analysis Option: CSC 349A, 349B, 449A, 449B
    - b. 3 units chosen from 491A, any course listed in the two area options not selected under a., or CSC 420. The 15 units needed for requirements a. and b. must contain at least 6 units numbered 400 or higher.
  - (iii) *Probability and Statistics*
    - a. STAT 250 and 251
    - b. STAT 350 and 351
    - c. 6 additional units chosen from MATH 352, 452, STAT 353, 354, 453, 454
    - d. 6 additional units offered by the Department chosen in consultation with the Department. At least 6 units chosen from Mathematics and Statistics courses numbered 400 or higher must be completed.
  - (iv) *Department approved option*
    - a. 15 units of courses offered by the Department numbered 300 or higher chosen in consultation with the Department. At least 9 of the 15 units must be chosen from courses numbered 400 or higher.

### Combined Programs in Chemistry and Mathematics:

For a B.Sc. degree in Combined Chemistry and Mathematics, students may take a Major or Honours program. These programs are not joint degrees in Chemistry and Mathematics, but a single degree program composed of a selected combination of courses from each of the departments. Students opting for either of these combined programs must contact the Chemistry and Mathematics Departments, and each student will be assigned an adviser from each of these departments. Students considering proceeding to graduate work in either Chemistry or Mathematics must consult with their advisers prior to making their final choice of courses.

A student graduating in the combined Honours program is required to obtain a 6.50 or higher graduating average and a grade point average of 6.50 or higher over the group of required 300 and 400 level courses in chemistry and mathematics in order to obtain a First Class Honours degree. To obtain a Second Class Honours degree a student is required to obtain at least a 4.00 graduating average.

#### First and Second Year (Major or Honours)

CHEM 100 <sup>A</sup> , or 101 <sup>B</sup> , or 140 <sup>C</sup>	(1½)
CHEM 102, or 245 <sup>D</sup>	(1½)
CHEM 213/222/231/235/245	(7½ or 6*)
Two of CSC 110, 112 and 115	(3)
MATH 100/101/200/201/233A/233C	(9)
Two of PHYS 110 (or 125)/120/220	(3)
Other courses (Electives)	(4½ or 6*)

<sup>A</sup>For students with Chemistry 11 and Algebra 12 or Mathematics 12 or equivalents

<sup>a</sup>For students with Chemistry 12 and Algebra 12 or Mathematics 12 or equivalents

<sup>c</sup>For students with at least "B" standing in Chemistry 12 and Algebra 12 or Mathematics 12 or equivalents

<sup>b</sup>For students with at least "B" standing in CHEM 140

<sup>d</sup>If CHEM 245 completed previously instead of 102

### Third and Fourth Year (Major)

(All courses listed below must be 300 level or above)

CHEM 312/323/324/345/346/444 (or 425)/446	(10½)
MATH 325/326/330A/330B/333A	(7½)
One of MATH 333C, 422, or 423	(1½)
Course chosen from the Mathematics Department in consultation with that Department	(1½)
Course(s) chosen in consultation with the Chemistry and Mathematics Departments	(3)
Other courses (Electives)	(6)

### Third and Fourth Year (Honours)

(All courses below must be 300 level or above)

All Chemistry courses listed under Major program plus	(10½)
CHEM 399/499	(4)
MATH 333A/333C/334/336/338/445A/445B	(10½)
Course(s) chosen from the Mathematics Department in consultation with that Department	(3)
Other courses (Electives)	(3)

Some possible courses which might be used to fulfill the units to be chosen in the above programs are: CHEM 306; 318; 335; 338, 424; 425; 444; CSC 349A; 349B; MATH 352; 368A; 368B; (for Honours, 325 and 326); STAT 353\*; 354\*.

\*These courses have STAT 250 and 251 as prerequisites, which would have to be included in the student's program as options.

### Combined Programs in Computer Science and Mathematics

For a B.Sc. degree in Combined Computer Science and Mathematics, students may take a Major or Honours program. These programs are not joint degrees in Computer Science and Mathematics, but a single degree program composed of selected courses from each of the departments. Students opting for either of these combined programs must contact the Computer Science and Mathematics Departments, and will be assigned an adviser from each of these departments. Students considering proceeding to graduate work in either Computer Science or Mathematics must consult with their advisers prior to making their final choice of courses.

A student graduating in the combined Honours program will be recommended for a First Class Honours degree if the student achieves a graduating average of at least 6.50. A student will be recommended for a Second Class Honours degree if the student achieves a graduating average of at least 5.00.

### First and Second Year (Major or Honours)

MATH 100 and 101	(3)
MATH 233A and 233C	(3)
MATH 200 and 201	(3)
MATH 222	(1½)
STAT 250 and 251	(3)
CSC 112 and 115 <sup>1</sup>	(3)
CSC 225, 230 and 275	(4½)

### Third and Fourth Year (Major)

MATH 330A and 330B	(3)
MATH 333A and one of 333C, 422 or 423	(3)
C SC 320, 349A and 349B	(4½)

Courses chosen from the Departments of Computer Science and Mathematics at the 300 level or above with at least 6 units at the 400 level. In selecting these courses students are urged to take at least 3 of the additional units in each of the two Departments. (12)

### Third and Fourth Year (Honours)

MATH 334, 336 and 338	(4½)
MATH 333A and 333C	(3)
CSC 320, 349A and 349B	(4½)
Two of CSC 420, 449A and 449B	(3)
Courses chosen from the Department of Computer Science or Mathematics at the 300 level or higher	(4½)
Courses chosen from the Departments of Computer Science or Mathematics at the 400 level	(6)

Students must complete a minimum of 3 units of 400 level courses offered by the Department of Mathematics as part of the above program.

<sup>1</sup> Students without a grade of B or higher in Computer Science 12 are also required to take CSC 110.

### Honours in Physics and Mathematics

Admission to the third and fourth years of the Honours Program in Physics and Mathematics requires the permission of both the Department of Physics and Astronomy and the Department of Mathematics. The class of the Honours degree of a student graduating in the Honours in Physics and Mathematics Program will be determined on the basis of the grade point average calculated using the best 30 units of approved 300 and 400 level courses. The class designated will be First Class if this average is at least 6.50 and Second Class if this average is at least 3.50.

In year I students will take (a) PHYS 120 and 220 or (b) PHYS 110 and 120 (or 120 and 125) or (c) PHYS 100 and 110. In each case the student will then choose subsequent courses indicated by the appropriate letter (a), (b) or (c).

#### Year I

(a) PHYS 120 and 220 or	(3)
(b) PHYS 110 and 120 or PHYS 120 and 125 or	(3)
(c) PHYS 100 and 110	(3)
3 units of first year Chemistry excluding 103	(3)
MATH 100 and 101	(3)
MATH 233A and 233C*	(3)
CSC 110 or 112	(1½)
(Students who believe that they have the equivalent of CSC 110 or 112 may request the Physics and Astronomy and Mathematics Departments to waive the CSC 110 or 112 requirement.)	

#### Year II

(a) PHYS 317 and 216	(3)
(b) PHYS 220, 317 and 216 or	(4½)
(c) PHYS 120, 220, 317 and 216	(6)
PHYS 214 and 215	(3)
MATH 200 and 201	(3)
MATH 333A and 333C*	(3)

#### Year III

PHYS 325 and 326†	(3)
PHYS 321A and 321B	(3)
PHYS 413A and 413B	(3)
MATH 325 and 326	(3)
MATH 334 and 336	(3)
MATH 338	(1½)
MATH elective**	(1½)

#### Year IV

PHYS 422 and 421	(3)
PHYS 423 and 420	(3)
PHYS 460	(0)
PHYS electives**	(3)
MATH 445A and 445B	(3)
MATH electives**	(3)

\* MATH 233A and 233C may be deferred to the second year, in which case 333A and 333C may be deferred to the fourth year.

† PHYS 325 may be deferred to the fourth year.

\*\* Mathematics electives are to be chosen in consultation with the Department of Mathematics, and Physics electives are to be chosen in consultation with the Department of Physics and Astronomy. Students will normally enroll in 18 units of work in each of third and fourth year.

### Notes

- All students taking a Major or Honours in Mathematics are strongly advised to take at least one University course in Physics.
- Any students who demonstrate to the Department that they have mastered the material of a course may be granted advanced placement.
- Students from outside British Columbia, transfer students from community colleges and students who have obtained credit for Grade XIII Mathematics must consult the Department before enrolling in any Mathematics course.
- Students planning a career in secondary school mathematics teaching are strongly advised to include MATH 333A as part of their Mathematics degree program.

### MATHEMATICS COOPERATIVE EDUCATION PROGRAM

The Cooperative Education Program in the Faculty of Arts and Sciences is described on page 31. Additional general regulations pertaining to Cooperative Education Programs of the University of Victoria are found on page 28.

Full time students in the Cooperative Education Program participate in a combined Mathematics and Computer Science Cooperative Pro-

gram during their first two years. In their third year, students may opt to complete a degree program in either Computer Science or Mathematics, and will then enter the Coop program in that department. Students who opt for the Major or Honours in Combined Computer Science and Mathematics, or for a Double Major or Double Honours in Computer Science and Mathematics, will remain in the combined Computer Science/Mathematics Coop Program.

The minimum academic requirements for entering the Mathematics and Computer Science Program are a grade point average of 4.50, a minimum grade point average of 5.50 in courses completed in the Departments of Computer Science and Mathematics and a grade of at least B- in each course completed in the Departments of Computer Science and Mathematics. Students are normally admitted to the Program in January, after the first term on campus, and application for admission should be made before the end of the first term. First year students wishing to apply for entry to the program should enroll in Mathematics 100 and 101, Computer Science 112 and 115, and Statistics 250. (Note that students without a grade of B or higher in Computer Science 12 are also required to take Computer Science 110.)

In order to graduate in the Mathematics Cooperative Program or the combined Mathematics Computer Science Cooperative Program students must:

- (i) successfully complete a minimum of four Work Terms. (The granting of Work Term credit by challenge is not permitted.)
- (ii) successfully complete the following thirteen courses, MATH 100, 101, 200, 201, 222, 233A and 233C, CSC 112, 115, 230 and 275, and STAT 250 and 251. (Note that students without a grade of B or higher in Computer Science 12 are also required to take CSC 110.)
- (iii) satisfy the course requirements of any of the Major or Honours degree programs offered by the Department of Mathematics.

Students registered in the Coop Program must be enrolled in at least 6 units of course work during each campus term. The performance of students will be reviewed after each Campus Term and each Work Term. Students whose performance is deemed to be unsatisfactory by the Computer Science and Mathematics Coop Committee may be required to withdraw from the program.

Each Work Term is recorded on the student's academic record and transcript (as COM, N or F) and details of Work Terms are recorded on the Record of Work Terms which is attached to the student's academic record and transcript.

Further information concerning the Cooperative Education Program in Mathematics may be obtained from the Department.

#### Notes:

- (1) Each student who is admitted to the Coop program during first year of University must complete all five scheduled Work Terms.
- (2) Students who transfer from other institutions and all students admitted to the Coop Program in their second year of University must complete at least four Work Terms and must complete all scheduled Work Terms in their program.

## UNDERGRADUATE COURSES

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### MATHEMATICS

Students should consult the Department concerning courses offered in any particular year.

**MATH 012 (no credit) PRECALCULUS MATHEMATICS** (3 fee units)  
The essentials of Algebra 12 which are prerequisite to Mathematics 100 and 102. Topics covered include: set language, algebra of polynomials, relations, functions and their graphs, conics, trigonometry, plane analytic geometry. FS(3-0)

#### MATH 100 (1½) CALCULUS: I

Review of analytic geometry; functions and graphs; limits; derivatives; techniques and applications of differentiation; antiderivatives; the definite integral and area; logarithmic and exponential functions; trigonometric and hyperbolic functions. (Prerequisite: Algebra 12 or its equivalent) (There is a special section of 100 available September-December for students who are well prepared in Mathematics and who wish to take a challenging course in the subject. A prerequisite for this section is a grade of A in Algebra 12. Note: All sections of 100 take a common final examination.) (Not open to students with credit in 102) FS(4-0)

#### MATH 101 (1½) CALCULUS: II

Volumes; arc length and surface area; techniques of integration with applications; Newton's method, trapezoidal and Simpson's rules; polar coordinates and area; l'Hospital's rule; Taylor's formula; improper integrals; series and tests for convergence; power series and Taylor series. (Prerequisite: 100 or equivalent) (There is a special section of 101 available January-April for students who are well prepared in Mathematics and who wish to take a challenging course in the subject. A prerequisite for this section is a grade of A- or better in Mathematics 100. Note: All sections of 101 take a common final examination.) FS(4-0)

#### MATH 102 (1½) CALCULUS FOR STUDENTS IN THE SOCIAL AND BIOLOGICAL SCIENCES

Calculus of one variable with applications to the social and biological sciences. Exponential growth. (Prerequisite: Algebra 12 or its equivalent) (Not open to students with credit in 100.) FS(3-0)

#### MATH 133 (1½) MATRIX ALGEBRA FOR ENGINEERS

Complex numbers; matrices and basic matrix operations; vectors; linear equations; determinants; eigenvalues and eigenvectors; linear dependence and independence; orthogonality. (Prerequisite: Admission to the Faculty of Engineering) (Not open to students with credit in 110 or 233A) F(3-0-1)

#### MATH 151 (1½) FINITE MATHEMATICS

Geometric approach to linear programming, linear systems. Gauss-Jordan elimination, matrices, permutations and combinations, basic laws of probability, conditional probability, independence, urn problems, tree diagrams and Bayes formula, random variables and their probability distributions; Bernoulli trials and the binomial distribution, hypergeometric distribution, expectation, applications of discrete probability. (Prerequisite: Algebra 12 or its equivalent, or MATH 012, which may be taken concurrently during the first term) (Students who have credit for 352, or for 233A and one of 222 or STAT 250, may not register in 151 for credit.) FS(3-0)

#### MATH 160A (formerly half of 160) (1½) MATHEMATICS FOR THE ELEMENTARY TEACHER: I

Sets, functions, and logic; whole numbers, divisibility, and elementary number theory; the integer, rational, and real number systems together with associated algorithms. (Prerequisite: Algebra 11 or consent of the Department) (Not open to students who have completed or are currently registered in any other university level mathematics course) FS(3-0)

#### MATH 160B (formerly half of 160) (1½) MATHEMATICS FOR THE ELEMENTARY TEACHER: II

Ratio, percent and interest; measurement and the metric system; elementary geometry, symmetry, congruence and similarity; probability. (Prerequisite: 160A) (Not open to students who have completed or are currently registered in any other university level mathematics course except 160A) S(3-0)

#### MATH 200 (1½) CALCULUS OF SEVERAL VARIABLES

Vectors and vector functions; solid analytic geometry; partial differentiation; directional derivatives and the gradient vector; Lagrange multipliers; multiple integration with applications; cylindrical and spherical coordinates; surface area; line integrals; Green's Theorem. The section of this course for engineering students will also cover the following topics: surface integrals and the divergence theorem. (Prerequisite: A grade of C or higher in 101) FS(3-0-1)

#### MATH 201 (1½) INTRODUCTION TO DIFFERENTIAL EQUATIONS

Principally a first course in ordinary differential equations. First order equations; geometric interpretation; direction fields and integral curves; applications to the physical and biological sciences; linear equations of higher order; solutions of constant coefficient equations and their application to vibration problems; nonlinear second order equations and examples; the phase plane; singular points and global behaviour of some examples. As time permits, the Laplace transform and some simple partial differential equations. (Prerequisite: 200 or a grade of B or higher in 101) FSK(3-0-1)

#### MATH 222 (1½) DISCRETE MATHEMATICS

An introduction to discrete mathematical structures with applications. Sets and propositions. The principle of inclusion and exclusion. Permutations and combinations. Relations and functions. Graphs; shortest paths, eulerian and hamiltonian paths and circuits, spanning trees and cut-sets. Generating functions and recurrence relations. Boolean algebras and their applications. (Prerequisite: 101, or 102 and 151) (Not open for credit to students with credit in 422 and/or 423) FS(3-0)

**MATH 233A (1½) MATRIX ALGEBRA: I**

Matrices: simultaneous equations; determinants; vectors in 2-, 3- and  $n$ -tuple space; inner product; linear independence and rank; change of coordinates; rotation of axes in 2- and 3-dimensional Euclidean space; orthogonal matrices; eigenvalues and eigenvectors. (*Prerequisite:* 3 units of 100 level mathematics courses; a student who has received an A grade in Algebra 12 or Mathematics 12 may apply to the Department for a waiver of this prerequisite.) (Not open to students with credit in 110 or 133) FSK(3-0)

**MATH 233B (1½) MATRIX ALGEBRA: II**

This course is not intended for students majoring in mathematics. Eigenvalues, eigenvectors and diagonalization of complex matrices with applications; orthogonal and unitary matrices; positive definite matrices with applications. (*Prerequisites:* 100 or 102, and 233A or 133) (Not open to students with credit in 333C) (This course is intended primarily for second year physics students or other science students with a strong mathematical background.) S(3-0)

**MATH 233C (1½) INTRODUCTION TO ALGEBRA**

The integers, induction, factorization, congruences. Definition and examples of rings, fields and integral domains. Rational numbers, real numbers, complex numbers. Polynomials and their factorization. Permutations; definition and examples of groups. Additional topics chosen from Boolean algebras and lattices; transfinite arithmetic. (*Prerequisite:* 233A or 110 or 133, and a grade point average of at least 3.00 in all 200 level mathematics and statistics courses completed) (This course is intended primarily for Mathematics students.) SK(3-0)

**MATH 240 (3) MATHEMATICS FOR STUDENTS IN ECONOMICS AND COMMERCE**

Techniques of integration; multivariable calculus; optimization; difference and differential equations with applications; linear programming; further topics in probability and linear algebra. (*Prerequisite:* 151 and 102, or 151 and 100) (Students who have obtained credit for 100 and 101 may enroll for 240 provided they enroll for 151 concurrently) (Not open to students with credit for 200 or 201) Y(3-0)

**MATH 242 (1½) MATHEMATICS OF FINANCE**

Compound interest and annuities-certain; analysis of securities, yield rates; equations of value; mortgages, amortization, sinking funds; depreciation, depletion and capitalization costs; mortality tables, life insurance and annuities. (*Prerequisite:* 102 and 151, or 101 and some knowledge of probability) (Not open to students with credit for 152) FS(3-0)

**Students with a D grade in Second Year Mathematics courses are advised not to register for further courses in Mathematics.**

**MATH 323A (1½) APPLIED DIFFERENTIAL EQUATIONS: I**

A review of the material on differential equations covered in 201. Special methods for first order differential equations, linear differential equations of first and higher orders with constant coefficients, Euler's equations, series solutions of selected second order differential equations with variable coefficients with special attention to Bessel's, Legendre's and hypergeometric equations. Laplace transforms and their applications to initial-value problems. (Primarily for students in the Physical Sciences) (*Prerequisites:* 200 and 201) (Credit cannot be obtained for both 323A and 325. This course cannot in general be included as part of the Mathematics Department's requirements for the Major or Honours degree.) F(3-0)

**MATH 323B (1½) APPLIED DIFFERENTIAL EQUATIONS: II**

Systems of linear differential equations, numerical methods, boundary value problems including orthogonal functions and Fourier series. Partial differential equations and their applications to problems in physics. (Primarily for students in the Physical Sciences) (*Prerequisite:* 323A) (Credit cannot be obtained for both 323B and 326. This course cannot in general be included as part of the Mathematics Department's requirements for the Major or Honours degree.) SK(3-0)

**MATH 325 (1½) INTERMEDIATE ORDINARY DIFFERENTIAL EQUATIONS**

The Laplace transform; series solutions of linear ordinary differential equations about ordinary points and regular singular points; solutions of Bessel's and other classical equations; linear systems of ordinary differential equations, exponential of a matrix; stability, the methods of Liapunov and applications; approximate solution of ordinary differential equations; regular and singular perturbation theory and numerical

methods. (*Prerequisites:* a grade of C or higher in 200 and 201, and 133 or 233A. *Corequisite:* 330A or 334) (Credit will not be given for both 323A and 325) F(3-0)

**MATH 326 (1½) INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS**

First order equations; linear equations and characteristics; nonlinear equations, the Monge cone and characteristic strips; classification of second order equations, characteristics; reduction to normal form, classical equations of mathematical physics; solution by separation of variables and Fourier series; introduction to the Fourier transform; classical and direct methods in the calculus of variations. (*Prerequisite:* 325) (Credit will not be given for both 323B and 326) SK(3-0)

**MATH 330A (1½) ADVANCED CALCULUS**

Sequences and series of real numbers; sequences and series of real valued functions; uniform convergence; Fourier series; differentiation and integration of series of real valued functions; power series; Taylor series; Taylor's formula with remainder; multivariate calculus; implicit function, Stokes and divergence theorems. (*Prerequisites:* 200 and 201) (Not open to students who have credit for 334) F(3-0)

**MATH 330B (1½) INTRODUCTION TO COMPLEX VARIABLES**

An introduction to the theory of functions of a complex variable, analytic functions, elementary functions, integration, power series, residue theory. (*Prerequisite:* 330A) (Not open to students who have credit for 338) SK(3-0)

**MATH 333A (1½) ABSTRACT ALGEBRA: I**

Groups, rings and fields, including quotient structures. (*Prerequisite:* 233C or permission of the Department) F(3-0)

**MATH 333C (1½) LINEAR ALGEBRA**

Vector spaces and linear transformations; the canonical forms; inner product spaces and the spectral theorem. (*Prerequisite:* 233C or 233B or 210) S(3-0)

**MATH 334 (1½) FOUNDATIONS OF ANALYSIS**

Sets and functions, the real number system, set equivalence, sequences and series, introduction to point set and metric topology, limits and continuity in metric spaces. (Primarily for Honours students. Not open to students who have credit for 430) (*Prerequisites:* 200 and 201 and the consent of the Department) F(3-0)

**MATH 336 (1½) REAL ANALYSIS: I**

Theory of differentiation; Riemann-Stieltjes integration; Fourier series; functional analysis. (Primarily for Honours students) (*Prerequisite:* 334) S(3-0)

**MATH 338 (1½) INTRODUCTION TO COMPLEX ANALYSIS**

Elementary functions of a complex variable, analytic functions, differentiation and integration of functions of a complex variable, power series and residue theory. (Primarily for Honours students. Not open to students who have credit for 330B) (*Prerequisite:* 334) S(3-0)

**MATH 352 (1½) DISCRETE PROBABILITY**

Discrete sample spaces, probability as a function of events on a sample space, combinatorial analysis, combination of events, inclusion-exclusion formulas, conditional probability, stochastic independence, law of large numbers, special discrete probability distributions. (*Prerequisite:* 200 or 201) F(3-0)

**MATH 362 (1½) ELEMENTARY NUMBER THEORY**

Divisibility, primes, congruences, arithmetic functions, primitive roots, quadratic residues, basic representation and decimals, and a selection from the following topics: Pythagorean triples, representation as sums of squares, infinite descent, rational and irrational numbers, distribution of primes. (For Mathematics Majors and Honours students, and for students planning to teach mathematics in secondary schools. Not open to students who have credit for 460.) (*Prerequisite:* 3 units of 200 level mathematics courses) F(3-0)

**MATH 368A (1½) EUCLIDEAN GEOMETRY**

The real affine and projective planes; Euclidean geometry; modern elementary geometry; elementary transformations; Euclidean constructions; the fundamental theorem of polygonal dissection; projectivities; proper conics. (*Prerequisite:* At least six units of mathematics or the consent of the Department) (Not open to students with credit for 366) F(3-0)

**MATH 368B (1½) NON-EUCLIDEAN GEOMETRY**

The parallel postulate; hyperbolic geometry; elliptic geometry; double elliptic geometry; the Poincaré model. (*Prerequisite:* At least six units of mathematics or the consent of the Department) S(3-0)

**NOTE: Admission to the following courses is by permission of the instructor or the Department.**

**MATH 422 (1½) COMBINATORIAL MATHEMATICS**

Permutations and combinations, generating functions, recurrence relations, inclusion-exclusion principle. Mobius inversion, Polya's enumeration theorem. Ramsey's theorem, systems of distinctive representatives, combinatorial designs, algorithmic aspects of combinatorics. (*Prerequisite:* 333A) F(3-0)

**MATH 423 (1½) GRAPH THEORY**

An introduction to the combinatorial, algorithmic and algebraic aspects of graph theory. (*Prerequisite:* 333A) S(3-0)

**MATH 430 (1½) TOPICS IN REAL ANALYSIS**

A selection from the following topics: Cauchy or Dedekind construction of the real numbers; cardinality of integers, rationals and reals (types of infinities), open and closed sets; Heine-Borel and Bolzano-Weierstrass theorems; basic theorems from calculus. (Not open to students who have credit for 334) (Primarily for students in Secondary Education or those taking a Major in Mathematics) (*Prerequisite:* 330A or consent of the Department) S(3-0)

**MATH 431 (1½) TOPICS IN COMPLEX ANALYSIS**

A continuation of the complex analysis begun in Mathematics 330B. (Primarily for students taking a Major in Mathematics) (*Prerequisite:* 330B or 338) NO(3-0)

**MATH 433C (1½) ABSTRACT ALGEBRA: II**

Field theory; composition series of groups; Galois Theory. (*Prerequisites:* 333A, and 333C or 333B) NO(3-0)

**MATH 433D (1½) APPLIED ALGEBRA**

A survey of the applications of algebraic structures in computer science, applied mathematics, and electrical engineering. Topics to be covered include: switching circuits, finite state machines, state diagrams, machine homomorphism, group and matrix codes. Optional topics include Polya-Burnside enumeration, Latin squares, primality testing. (*Prerequisite:* 333A) NO(3-0)

**MATH 435 (1½) REAL ANALYSIS: II**

Lebesgue measure and integration. The  $L_p$  spaces. Introduction to Hilbert and Banach spaces. (Primarily for Honours students) (*Prerequisite:* 336 or the consent of the Department) F(3-0)

**MATH 445A (1½) ADVANCED ORDINARY DIFFERENTIAL EQUATIONS**

Existence; uniqueness; continuous dependence; series solutions; examples and convergence; the Sturm-Liouville theory, Fourier series; convergence and completeness; attractors; other topics as time permits. (*Prerequisites:* 336 or the consent of the Department) F(3-0)

**MATH 445B (1½) ADVANCED PARTIAL DIFFERENTIAL EQUATIONS**

The Cauchy-Kowalewskaya theorem; geometric theory of first order partial differential equations; well posed problems; elliptic equations; semigroups. (*Prerequisite:* 336 or consent of the Department) S(3-0)

**MATH 452 (1½) STOCHASTIC PROCESSES**

Introduction to the branch of probability theory which deals with the mathematical analysis of systems that evolve in time while undergoing chance fluctuations. Main topics include random walks, Markov chains, Poisson processes, birth and death processes, renewal theory. Examples illustrate wide applicability of stochastic processes in many branches of science and technology. (*Prerequisites:* 330A or 334, and either 352 or STAT 350) S(3-0)

**MATH 462 (1½) NUMBER THEORY**

A selection of topics which may include compositions and partitions, geometry of numbers, rational approximation, distribution of primes, order of magnitude of arithmetic functions, proofs of the Prime Number Theorem and of Dirichlet's Theorem on primes in arithmetic progressions, continued fractions. (Not open to students who have credit for 460; 362 and 462 together form the equivalent of 460) (*Prerequisites:* Grade of B- or higher in 362, and consent of the instructor) S(3-0)

**MATH 465 (1½) INTRODUCTION TO TOPOLOGY**

Basic concepts of point set topology. (*Prerequisite:* 334, which may be taken concurrently, or 330A or the consent of the Department) F(3-0)

**MATH 468 (1½) TOPICS IN GEOMETRY**

Appropriate topics may be selected from among the following: finite Desarguesian spaces; symmetry geometry; polyhedra; geometric designs and tactical configurations; axiomatics. Since the same topic will not be offered in two successive years, the course may be repeated for credit. (*Prerequisite:* 368A or the consent of the Department) NO(3-0)

**MATH 490 (1½ or 3) DIRECTED STUDIES IN MATHEMATICS**

Students must consult the Department before registering. This course may be taken more than once in different fields with permission of the Chairman of the Department.

**MATH 491A (1½) TOPICS IN APPLIED MATHEMATICS**

Through this course the Department offers advanced topics in various areas of applied mathematics. Possible topics include population modeling, stochastic processes, discrete optimization, actuarial mathematics, calculus of variations, and fluid mechanics. Information on the topics available in any given year will be available from the Chairman of the Department. Entry to this course will be restricted to third or fourth year students who meet the prerequisite specified for the topic to be offered. This course may be taken more than once in different topics with permission of the Chairman of the Department. This year: "Industrial Mathematics" S(3-0)

**MATH 491B (1½) TOPICS IN PURE MATHEMATICS**

Through this course the Department offers advanced topics in various areas of pure mathematics. Possible topics include advanced complex analysis, functional analysis, introduction to manifolds, introduction to differential geometry, and mathematical logic. Information on the topics available in any given year will be available from the Chairman of the Department. Entry to this course will be restricted to third or fourth year students who meet the prerequisite specified for the topic to be offered. This course may be taken more than once in different topics with permission of the Chairman of the Department. This year: "Differential Geometry" S(3-0)

**STATISTICS****STAT 250 (1½) INTRODUCTION TO STATISTICS: I**

Elementary probability theory; random variables, discrete and continuous probability distributions, expectation; joint distributions; linear functions of random variables; basic principles of statistical inference; random sampling; point estimates and their standard errors; interval estimation; one- and two-sample problems; an introduction to hypothesis testing, probability value. (*Prerequisite:* MATH 100 or 102) FS(3-0)

**STAT 251 (1½) INTRODUCTION TO STATISTICS: II**

Hypothesis testing; sampling distributions; introduction to analysis of variance, regression and correlation; analysis of contingency tables; tests for goodness of fit; nonparametric methods. (*Prerequisite:* Grade of C+ or higher in 250, or 254 and permission of the Department) FS(3-0)

**STAT 254 (1½) PROBABILITY AND STATISTICS FOR ENGINEERS**

Probability axioms, properties of probability, counting techniques, conditional probability, independence, random variables, discrete and continuous probability distributions, expectation, variance; binomial, hypergeometric, negative binomial, Poisson, uniform, normal, gamma and exponential distributions; discrete and continuous joint distributions, independent random variables, expectation of functions of random vectors, covariance, random samples and sampling distributions, central limit theorem; point and interval estimation for one and two sample problems; linear regression and correlation. (*Prerequisite:* Admission to the Faculty of Engineering. *Corequisite:* MATH 200) (Credit cannot be obtained for both 254 and 250) F(3-0-1)

**STAT 350 (1½) MATHEMATICAL STATISTICS: I**

Discrete and continuous probability models, random variables and their distributions, mathematical expectation, moment generating functions, sums of random variables, limit theory, and sampling distributions. Emphasis on the probability theory needed for 351. (*Prerequisites:* 251 and MATH 200) F(3-0)

**STAT 351 (1½) MATHEMATICAL STATISTICS: II**

Brief introduction to decision theory, point and interval estimation, hypothesis testing; regression and correlation, analysis of variance. Emphasis on the mathematics of statistics. (*Prerequisite:* 350) S(3-0)

**STAT 353 (1½) APPLIED REGRESSION ANALYSIS**

An outline of linear regression theory with applications. (*Prerequisite:* 250 and 251 or permission of the instructor) F(3-0)

**STAT 354 (1½) SAMPLING TECHNIQUES**

Principal steps in planning and conducting a sample survey. Sampling techniques including stratification, systematic sampling and multistage sampling. Practical survey designs with illustrations. Nonsampling errors. (*Prerequisite:* 250 and 251 or permission of instructor) S(3-0)

**STAT 453 (1½) THE DESIGN AND ANALYSIS OF EXPERIMENTS**

An introduction to the principles of experimental design and the techniques of analysis of variance. A discussion of experimental error, randomization, replication, and local control. Analysis of variance is developed for single factor and multifactor experiments. The use of concomitant observations. Multiple comparisons and orthogonal contrasts. (*Prerequisites:* 251; 353 or some experience or familiarity with experimentation) S(3-0)

**STAT 454 (1½) TOPICS IN APPLIED STATISTICS**

Possible topics include: Multivariate analysis, multidimensional scaling methods, clustering methods, and time series analysis. (*Prerequisites:* 353 and the consent of the instructor) NO(3-0)

**GRADUATE COURSES**

Students should consult the Department of Mathematics concerning courses offered in any particular year.

**MATHEMATICS****MATH 510 (2 or 4) ABSTRACT ALGEBRA****MATH 511 (2 or 4) TOPICS IN MATRIX THEORY AND LINEAR ALGEBRA****MATH 520 (2 or 4) NUMBER THEORY****MATH 522 (2 or 4) COMBINATORICS**  
(*Prerequisite:* 422 or permission of the Department)**MATH 523 (2 or 4) GRAPH THEORY**

(*Prerequisite:* 423 or permission of the Department)

**MATH 530 (2 or 4) ANALYSIS****MATH 531 (2 or 4) FUNCTIONAL ANALYSIS****MATH 540 (2 or 4) TOPOLOGY****MATH 550 (2 or 4) TOPICS IN APPLIED MATHEMATICS****MATH 551 (2 or 4) DIFFERENTIAL AND INTEGRAL EQUATIONS****MATH 555 (2 or 4) TOPICS IN PROBABILITY****MATH 560 (2 or 4) MATHEMATICAL MODELS**

The formulation, analysis and interpretation of mathematical models of selected scientific topics.

**MATH 581 (2 or 4) DIRECTED STUDIES**

Directed studies may be available in the areas of faculty interest. (May be taken more than once in different areas with the permission of the Chairman of the Department)

**MATH 585 (2 or 4) SEMINAR**

(May be taken more than once in different areas with the permission of the Chairman of the Department)

**MATH 599 (4-6) MASTER'S THESIS** (Grading: INP, Com, N or F)**STATISTICS****STAT 554 (2 or 4) TIME SERIES ANALYSIS****STAT 556 (2 or 4) TOPICS IN STATISTICS****STAT 557 (2 or 4) SAMPLING TECHNIQUES****STAT 558 (2 or 4) LINEAR AND NONLINEAR STATISTICAL MODELS****STAT 561 (2 or 4) DECISION THEORY AND STATISTICAL INFERENCE****STAT 562 (2 or 4) DISTRIBUTION FREE AND RANK ORDER STATISTICS****MEDIEVAL STUDIES**

Director: John J. Tucker, B.A., M.A., (Tor.), B. Litt., (Oxon.), Ph.D. (Tor.), Associate Professor (English)

Medieval culture, which flourished in Europe and elsewhere from about A.D. 300-1500, lends itself well to interdisciplinary study, since a proper understanding of the life of the Middle Ages requires a knowledge of the history and thought of the period, especially as expressed in its various literatures, languages, and arts.

Major and Honours programs are not available. However, a General program is offered. Also, Major and Honours students in other departments may obtain a Minor in Medieval Studies by completing the requirements for the General program with courses in areas outside that of their Major or Honours concentration (see Minor, page 31).

**GENERAL PROGRAM**

The General Program consists of 301 and 302 and an additional six units of medieval courses at the 300/400 level to be approved by the Director of the Medieval Studies Program. Students on a General Program or those wishing to combine a Medieval Studies Minor with a Major or Honours Degree must select their courses from areas outside their field of concentration.

**SUGGESTED COURSES:**

ENGL 340 (1½) Introduction to Old English  
ENGL 341 (1½) Old English Literature  
ENGL 346 (1½) Introduction to Old Icelandic  
ENGL 347 (1½) Old Icelandic Literature  
ENGL 351 (1½) The Canterbury Tales  
ENGL 352 (1½) Chaucer Studies  
ENGL 353 (1½) Studies in Medieval English Literature

ENGL 354 (1½) Old and Middle English Literature in Translation.

ENGL 440 (1½) History of the English Language

FREN 425 (3) History of the Language

FREN 440 (1½ or 3) Medieval Literature

GER 411 (1½) Medieval German Literature

SPAN 470A (1½) Early Medieval Literature

SPAN 470B (1½) Late Medieval Literature

SPAN 490A (1½) History of the Spanish Language

ITAL 470 (1½) Dante's Divine Comedy

ITAL 472 (1½) Petrarch and Boccaccio

HIST 380 (1½) Problems in Medieval Europe

HIST 433B (1½) Pre-Modern China

HIST 435 (1½) Feudalism in Japan

H A 321 (1½) Late Classical and Early Christian History in Art

H A 323 (1½) Byzantine History in Art

H A 326 (1½) Early Medieval History in Art

H A 328 (1½) Gothic Art and Architecture

H A 352 (1½) Genesis of Islamic Art and Architecture

H A 354 (1½) Medieval Islamic Art and Architecture

H A 357 (1½) Amirates and Sultanates of the Muslim Mediterranean

H A 358 (1½) Islam and Asia

H A 371 (1½) Early Chinese Art

H A 373 (1½) Early Japanese Art and Architecture

H A 420 (3) Special Studies in Medieval Art

H A 450 (1½ or 3) Topics in Islamic Art and Civilization

H A 451 (1½) Islamic Architecture

MUS 311 (3) Music of the Medieval Period and the Renaissance

THEA 307 (1½) Studies in Medieval Theatre

Students, especially those considering graduate studies in this field, are urged to take advantage of the Latin courses offered by the Classics

department. Also recommended are HIST 236 (Medieval Europe) and PHIL 245 (Medieval Philosophy).

## COURSES

(Course offering codes: Y=Sept.-Apr., F=Sept.-Dec., S=Jan.-Apr., K=May-Aug., NO=Not offered, this session)

### MEDI 301 (1½) THE MIDDLE AGES: I

An interdisciplinary introduction to the Middle Ages. The evolution of

medieval civilization and its characteristic institutions will be examined through a study of the art, religion, and history of the period both in Europe and in the East. (3-0)

### MEDI 302 (1½) THE MIDDLE AGES: II

An interdisciplinary examination of a selected aspect of medieval history and civilization, with an emphasis placed on the interaction of politics, religion, economics, art and literature. (May be taken more than once depending on circumstances) (3-0)

## DEPARTMENT OF PACIFIC AND ASIAN STUDIES

Daniel J. Bryant, B.A. Ph.D. (Brit. Col.), Associate Professor and Chairman of the Department

James A. Boutilier, B.A. (Dalhousie), M.A. (McMaster), Ph.D. (London), Adjunct Associate Professor (1987-88)

Hsin-i Hsiao, B.A., (Tunghai), M.A., Ph.D. (Harvard), Associate Professor

Joe B. Moore, B.A. (Wyoming), M.A. (Calif.-Berkeley), Ph.D. (Wisc.), Associate Professor

Yuen-Fong Woon, B.A., M.A. (Hong Kong), Ph.D. (Brit. Col.), Associate Professor

Richard King, B.A., M.A. (Cantab.), Ph.D. (Brit. Col.), Assistant Professor

Hiroko Noro, B.A., M.A. (Aoyama Gakuin), Visiting Assistant Professor (1987-89)

Terence Craig Russell, B.A., M.A. (Brit. Col.), Ph.D. (A.N.U.), Visiting Assistant Professor (1987-88)

B. Morgan Young, B.A. (Alta.), M.A., Ph.D. (Brit. Col.), Assistant Professor

Yasuko France, B.A. (Tokyo), M.Ed. (Mass.), Visiting Lecturer (1987-88)

### PACIFIC STUDIES PROGRAM

The Interdisciplinary Pacific Studies Program, approved by the Senate in February 1969, is designed at present to provide a concentration in the area of Pacific Studies to be used for both general education and professional purposes. Its initiation stems from Canada's rapidly developing interest in the Pacific area, the location of Victoria in relation to the Pacific and a serious lack of knowledge about the area.

Students interested in the program should consult the Chairman as soon as possible after entering the University, so guidance may be given to help in course selection during the first and second years.

Program requirements for a B.A. in Pacific Studies are as follows:

#### GENERAL

First and second years: 200. Students are also encouraged to take CHIN 149, (or 100), 150 (or 200) or JAPA 149 (or 100), 150 (or 200).

Third and fourth years: 9 units of upper level Pacific Studies courses which must be chosen from 311, 312, 319 (or 434A), 321 (or 436A), 323, 412 (or 324), 413, 414, 415, 419 (or 434B), 421 (or 436B), 422, 423, 490; and 6 other units of Pacific Studies courses or courses selected from the supporting course list below. Of these 15 units, each of the following regions must be covered by at least three units: Japan; China; Southeast Asia; Australia and/or Pacific Islands.

#### MAJOR

The Pacific Studies Major may be taken either without a regional emphasis or with an emphasis on China or Japan.

First and second year: 200 plus 6 additional units, as follows:

- China emphasis: CHIN 149 (or 100) and 150 (or 200)
- Japan emphasis: JAPA 149 (or 100) and 150 (or 200)

Students selecting a China or Japan emphasis are urged to continue language study beyond the required 6 units, which should preferably be taken in the first year.

- Other Major students: 6 units or 100 or 200 level courses in the departments of Anthropology, Geography, History, History in Art, Political Science, or Sociology, chosen as preparation for upper level courses in those departments relevant to the Pacific Studies Program.

Third and fourth years: a total of 24 additional units, as follows:

- PACI 490 (or CHIN 490 or JAPA 490), 3 units
- 12 units of upper level Pacific Studies courses chosen from 311, 312, 319 (or 434A), 321 (or 436A), 323, 412 (or 324), 413, 414, 415, 419 (or 434B), 421 (or 436B), 422, 423.

Note that 311 is prerequisite to courses numbered 490 and should be taken by the third year.

- 9 other units of Pacific Studies courses or courses selected from the supporting course list below.

Note that of the 24 units of third and fourth year work, at least 3 must be taken from each of the following regions: China, Japan, Southeast Asia and Australia or Pacific Islands.

Supporting course list: (Note: specific prerequisites are indicated in the course listings in departments but some departments have general prerequisites for upper level courses).

- ANTH 326 (1½) Ethnology of Oceania: Micronesia and Polynesia
- ANTH 327 (1½) Ethnology of Oceania: Australia and Melanesia
- ANTH 329 (1½) Ethnology of Southeast Asia
- ANTH 418 (Sociology 418) (1½) Social Change
- ANTH 419 (Sociology 419) (1½) Modernization and Development
- BIOL 310 (3) Elements of Oceanography
- CHIN 201 (1½) Aspects of Chinese Culture
- CHIN 300 (3) Advanced Modern Chinese
- CHIN 302 (3) Introduction to Chinese Literature, in Translation
- CHIN 303A (1½) Topics in Chinese Thought: Legalism
- CHIN 303B (1½) Topics in Chinese Thought: Confucianism
- CHIN 304A (1½) Topics in Chinese Thought: Taoism
- CHIN 304B (1½) Topics in Chinese Thought: Buddhism
- CHIN 305 (1½) Modern Chinese Literature and Society (1900-1949)
- CHIN 306 (1½) The Literature of the People's Republic of China (1949 to the Present)
- CHIN 410 (3) Readings in Chinese Literature
- CHIN 490 (1½ or 3) Directed Studies
- ECON 320 (1½) Economic Development
- ECON 323A (1½) Comparative Economic Systems
- ECON 323B (1½) The Socialist Economies
- ECON 405A (1½) International Trade Theory and Policy
- ECON 405B (1½) International Monetary Theory and Policy
- ECON 420 (1½) Theory of Economic Development
- ENGL 439 (3) Commonwealth Literature
- GEOG 205B (1½) Selected Themes in Cultural Geography
- GEOG 347A (1½) Geography of Economic and Cultural Change: Developed World
- GEOG 347B (1½) A Geography of Third World Development
- GEOG 364 (1½) Geography of Traditional China
- GEOG 365 (1½) Geography of Modern China
- GEOG 463A (1½) Geography of Mainland Southeast Asia
- GEOG 463B (1½) Geography of Insular Southeast Asia
- GEOG 465 (3) Geography of Japan
- HA 231 (3) The Great Cultures of Asia
- HA 470 (1½ or 3) Special Studies in Far Eastern Art
- HA 471 (1½) Early Chinese Painting
- HA 472 (1½) Later Chinese Painting
- HA 473 (1½) Japanese Painting
- HA 474 (1½) Ukiyo-e Prints and Painting
- HA 475 (1½ or 3) The Art and Architecture of Southeast Asia
- JAPA 201 (1½) Aspects of Japanese Culture
- JAPA 260 (LING 260) (1½) Introduction to the Japanese Language and Linguistics
- JAPA 300 (3) Third Year Japanese
- JAPA 302 (1½) Japanese Literature in Translation: From Earliest Times to 1867
- JAPA 303 (1½) Modern Japanese Literature in Translation: From 1868 to the Present Day
- JAPA 358 (3) Topics in Japanese Language, Literature, and Culture
- JAPA 400 (3) Readings in Modern Japanese Prose
- JAPA 490 (1½ or 3) Directed Studies
- LING 260 (JAPA 260) (1½) Introduction to Japanese Language and Linguistics

LING 360 (3) General Linguistics  
 LING 361 (3) Anthropological Linguistics  
 LING 395 (1½) Sociolinguistics  
 PHIL 287 (3) Eastern Philosophy  
 POLI 312 (3) Communist Political Systems  
 POLI 315 (1½) Government and Politics in the U.S.S.R.  
 POLI 317 (3) Politics of Developing Areas  
 POLI 445 (3) Comparative Foreign Policy  
 RUSS 301 (1½) Aspects of Russian Culture (in English)  
 SOCI 418 (Anthropology 418) (1½) Social Change  
 SOCI 419 (Anthropology 419) (1½) Modernization and Development

### PACIFIC STUDIES COOPERATIVE EDUCATION PROGRAM

The Pacific Studies Cooperative Education Program is administered under the Arts Cooperative Education Program (see Calendar p. 36). Entry into this particular program is restricted to students who are enrolled in a Major Program in Pacific Studies. Students undertake their first work term after completion of second year, and are required to complete a minimum of four work terms. To be admitted and to continue in the Pacific Studies Cooperative Education Program, students must maintain a 6.50 average in Pacific and Asian Studies courses, with a 5.00 grade point average overall. A student may withdraw from the program and graduate in the regular Pacific Studies Major Program.

#### CURRICULUM

Students must fulfill all of the requirements both of the Pacific Studies Major Program and of the Arts Cooperative Program. The following points arising from the scheduling of work terms should be noted:

- If they are including both courses in their programs, Coop students must take both PACI 319 (or PACI/HIST 434A) and PACI 321 (or PACI/HIST 436A) in the fall term of their third year.
- Coop students may take PACI 490 (or CHIN 490 or JAPA 490) either as a 3 unit course or as two 1½ unit courses separated by a work term.
- Coop students are encouraged to complete all full year courses as early as possible in their program. Note in particular that most language courses are offered only on a full year basis.

### PROGRAM IN CHINESE STUDIES

#### GENERAL

First Year: 100

Second Year: 200

Third and Fourth Years: 300 plus six additional units of courses numbered 300 or above related to China and chosen in consultation with the Department. Students eligible for placement in 410 may count it in place of 300 toward their General program.

Students who wish to proceed to the B.A. degree under the regulations for the General Program and who wish to study Chinese as one of their fields of concentration are urged to consider one of the following as their second field of concentration: Geography, History in Art, Pacific Studies, Linguistics or a second modern language.

### PROGRAM IN JAPANESE STUDIES

#### GENERAL

First Year: 100

Second Year: 200

Third and Fourth Years: 300 plus six additional units of courses numbered 300 or above related to Japan and chosen in consultation with the Department.

Students who wish to proceed to the B.A. degree under the regulations for the General Program and who wish to study Japanese as one of their fields of concentration are urged to consider one of the following as their second field of concentration: Geography, History, Pacific Studies, Linguistics, or a second modern language.

### COURSES

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### CHINESE

Native speakers of Chinese (Mandarin) may not obtain credit for 100, 149, 150, 200, 300, or 410(Y02), but may be allowed to take 410(Y01) or 490 for credit. A native speaker is defined in this context as a person who has spoken some form of Chinese since childhood and who has received

sufficient instruction in Chinese to be literate in the Chinese script. Students who are not native speakers, but who have some knowledge of a form of Chinese other than Mandarin (e.g. Cantonese) will be placed at an appropriate level; however, such students may, at the instructor's discretion, be required to withdraw or to transfer to a higher level course should their language proficiency prove greater than was initially supposed.

#### CHIN 100 (3) FIRST YEAR CHINESE

Systematic introduction of Mandarin pronunciation followed by elementary grammar and basic vocabulary. Students will learn to speak and understand simple sentences and to read and write about five hundred Chinese characters in both traditional and simplified forms. Note that 100 is not open to students who have a reading knowledge of Chinese. (Not open to students with credit in 149 or its equivalent) Y(3-1)

#### CHIN 149 (3) INTENSIVE CHINESE: I

This course will offer intensive Chinese language instruction to beginning language students. The course will enable students to develop basic language skills, including listening comprehension, speaking, reading and writing, through lectures, class discussions, tutorials for conversation practice, laboratory sessions, and other activities. It will cover a basic one year study of the Chinese language in one term, and will prepare students for 150. (Not open to students with credit in 100 or its equivalent)

R. King

F(5-2)

#### CHIN 150 (3) INTENSIVE CHINESE: II

Continuation of 149 for those students who intend to practise their listening comprehension, speaking and reading abilities, and writing skills on a more advanced level. This course is equivalent to a second year Chinese course, but is very intensive. (Prerequisite: 149 or equivalent) (Not open to students with credit in 200) S(5-2)

#### CHIN 200 (3) SECOND YEAR CHINESE

A sequel to 100. More advanced grammar and idioms, and the introduction of an additional seven hundred Chinese characters. (Prerequisite: 100 or the equivalent) (Not open to students with credit in 150 or its equivalent) Y(3-1)

#### CHIN 201 (formerly 301) (1½) ASPECTS OF CHINESE CULTURE

A survey of the development of outstanding aspects of the Han Chinese intellectual and literary tradition from earliest times to the present day. The emphasis will be on religious, philosophical, and literary traditions, but some reference will be made to relevant historical and social background and to the visual arts, particularly painting. Most of the course will be concerned with the premodern period, but the effects of modern events on cultural life will be dealt with in a series of lectures toward the end of the term. No knowledge of Chinese is required. (Prerequisite: None, the course is open to all students)

D.J. Bryant

S(3-0)

#### CHIN 300 (3) ADVANCED MODERN CHINESE

A sequel to 200; further practice in conversation together with the reading and translation of materials in modern Chinese. Introduction of elements of the classical language. (Prerequisite: 150, 200 or equivalent) Y(3-1)

#### CHIN 302 (3) INTRODUCTION TO CHINESE LITERATURE, IN TRANSLATION

A survey of Chinese literature from early times to the end of the 19th century. The emphasis will be on poetry and fiction, but examples of drama and of historical and philosophical prose will be discussed as well. While the course will be concerned chiefly with the literary interest of the works to be discussed, relevant social and historical backgrounds will be introduced as appropriate. (Prerequisite: Second year standing or permission of the instructor) (This course will alternate with 305 and 306) D.J. Bryant Y(3-0)

#### CHIN 303A (1½) TOPICS IN CHINESE THOUGHT: LEGALISM

An analysis of selected topics in Legalism, with emphasis on interpretation of controversial issues in Legalist thought. Among the areas to be discussed are: 1) the role of Legalism in Chinese history, 2) current official interpretation of Legalism, 3) Shang Yang's New Law, 4) Shen Pu-hai's Legalism and Taoism, 5) Han Fei Tzu's synthesis of early Legalism, 6) Legal codes in imperial China — the Confucianization of Legalism. This course will be taught in English. (Prerequisite: Second year standing or permission of the instructor)

H. Hsiao

F(3-0)

**CHIN 303B (1½) TOPICS IN CHINESE THOUGHT: CONFUCIANISM**

An analysis of selected topics in Confucianism, with emphasis on the interpretation of controversial issues in Confucian thought. Among the areas to be discussed are: 1) current official interpretations of Confucianism, 2) the anti-Confucian movement during the May Fourth period, 3) early Confucianism vs. state Confucianism, 4) the cultivation of sagehood in neo-Confucianism, 5) Confucianism and traditional Chinese political culture, 6) contemporary reinterpretation of Confucianism. This course will be taught in English. (*Prerequisite:* Second year standing or permission of the instructor) S(3-0)

**CHIN 304A (1½) TOPICS IN CHINESE THOUGHT: TAOISM**

An analysis of selected topics in Taoist thought and its influence on Chinese culture. Among the areas to be discussed are: 1) the quest for immortality in early Taoism, 2) Taoist folk religion, 3) Taoist monastic life, 4) Taoist influence on literature and arts, 5) Taoist influence on political culture. This course will be taught in English. (*Prerequisite:* Second year standing or permission of the instructor) NO(3-0)

**CHIN 304B (1½) TOPICS IN CHINESE THOUGHT: BUDDHISM**

An analysis of selected topics in the Buddhist conquest of China and the Chinese transformation of Buddhism. Among the areas to be discussed are: 1) the introduction of foreign Buddhism in terms of native Taoist concepts, 2) resistance against Buddhism in Confucian gentry circles and Buddhist counter arguments, 3) conflict between Buddhism and Taoism, 4) the triumph of Buddhism in the Sui and T'ang dynasties, 5) major schools of Buddhism in China, 6) Buddhism in modern China. This course will be taught in English. (*Prerequisite:* Second year standing or permission of the instructor) NO(3-0)

**CHIN 305 (1½) MODERN CHINESE LITERATURE AND SOCIETY (1900-1949)**

After a historical overview and a criticism workshop, the course will consist of a study of selected literary texts from late Qing and Republican China. The development of modern Chinese literature will be traced from novels of exposure written at the turn of the century, through the short stories of the May Fourth period, to works of fiction and drama written in the 1930's and 1940's. There will be supplementary readings in social and political history and literary criticism. The course will be taught in English. (*Prerequisite:* Second year standing or permission of the instructor) (This course, with 306, will alternate with 302) (Next offered 1989-90) NO(3-0)

**CHIN 306 (1½) THE LITERATURE OF THE PEOPLE'S REPUBLIC OF CHINA (1949 TO THE PRESENT)**

A study of Chinese literary texts written in a range of forms and styles during the period of communist rule and covering such important issues as the social position of women, land ownership, modernization of industry, and the treatment of intellectuals. The course will be taught in English. (*Prerequisite:* Second year standing or permission of the instructor) (This course, with 305, will alternate with 302) (Next offered 1989-90) NO(3-0)

**CHIN 410 (3) READINGS IN CHINESE LITERATURE**

Reading, analysis, and discussion of selected literary works in Chinese. There will be periodic translation assignments and one essay during the year. Regular class discussions of the readings will provide an opportunity for students to improve their competence in spoken Mandarin. The content of Chinese 410 will vary from year to year. (May be taken more than once in different topics with the permission of the Chairman of the Department, up to a maximum of 6 units) (*Prerequisite:* Chinese 300, or the equivalent, or permission of the Chairman of the Department) Y(3-0)

**CHIN 490 (1½ or 3) DIRECTED STUDIES**

This course will normally involve readings and a research project in a particular area of Chinese Studies in which the student is qualified. The individual program of studies will be supervised by an appropriate faculty member. (May be taken more than once for credit in different topics up to a maximum of 6 units) (*Prerequisites:* Will vary according to the topic; prospective students should consult with the Chairman of the Department)

**JAPANESE**

to be literate in Japanese. Students who are not native speakers, but who do have some knowledge of Japanese, will be placed at an appropriate level; however, such students may, at the instructor's discretion, be required to withdraw or to transfer to a higher level course should their language proficiency prove greater than was initially supposed.

**JAPA 100 (3) FIRST YEAR JAPANESE**

This is an introductory course in the Japanese language designed to impart the basic level of linguistic skills to students with no previous knowledge of the language. Although reading and writing practices are introduced from the beginning and done throughout the course, emphasis is on the development of listening comprehension and speaking abilities. Prepares students for 200. (Not open to students with credit in 149 or its equivalent) Y(3-1)

**JAPA 149 (3) INTENSIVE JAPANESE: I**

This course will offer intensive Japanese language instruction to beginning language students. The course will enable students to develop basic language skills, including listening comprehension, speaking, reading and writing, through lectures, class discussions, tutorials for conversation practice, laboratory sessions, and other activities. It will cover a basic one year study of the Japanese language in one term, and will prepare students for 150. (Not open to students with credit in 100 or its equivalent) H. Noro F(5-2)

**JAPA 150 (3) INTENSIVE JAPANESE: II**

Continuation of 149 for those students who intend to practise their listening comprehension, speaking and reading abilities, and writing skills on a more advanced level. This course is equivalent to a second year Japanese course, but is very intensive. (*Prerequisite:* 149 or equivalent) (Not open to students with credit in 200) H. Noro S(5-2)

**JAPA 200 (3) SECOND YEAR JAPANESE**

A continuation of 100 for students who wish to develop their practical communicative skills through improving their comprehension, speaking, reading, and writing abilities in Japanese. (*Prerequisite:* 100 or equivalent) (Not open to students with credit in 150) Y(3-1)

**JAPA 201 (formerly 301) (1½) ASPECTS OF JAPANESE CULTURE**

A survey of cultural developments in Japan from earliest times to the present. The major trends of Japanese history will be examined, with emphasis on the outstanding cultural innovations of each epoch, especially in the areas of literature, drama, philosophy and religion, and the visual arts. Relevant social backgrounds will also be considered. Lectures on modern Japan will include discussion of aspects of contemporary society, and Japan's importance in the world community. No knowledge of Japanese is required. (*Prerequisite:* None, the course is open to all students) F(3-0)

**JAPA 260 (LING 260) (1½) INTRODUCTION TO THE JAPANESE LANGUAGE AND LINGUISTICS**

A general introduction to the synchronic and diachronic descriptions of Japanese; subjects covered may include: phonology, morphology, syntax, semantics, historical changes, poetics, dialectology, orthography, the sociolinguistic and psycholinguistic aspects of Japanese, the relationship between Japanese language, thought, and culture, and the history of Japanese linguistics. (Previous knowledge of Japanese not necessary) NO(3-0)

**JAPA 300 (3) THIRD YEAR JAPANESE**

A course designed to improve the students' mastery of the spoken and written language. Classes offer practice in listening comprehension, conversation, reading, translation, and composition. (*Prerequisite:* 150, 200, or equivalent) Y(3-0-1)

**JAPA 302 (1½) JAPANESE LITERATURE IN TRANSLATION: FROM EARLIEST TIMES TO 1867**

A survey, through material in English translation, of Japanese literature from its earliest beginnings to the eve of the Meiji Restoration. Prose, poetry, and drama, with selected readings from each of these literary forms, will be discussed. Where appropriate, relevant social and historical backgrounds will be examined. (*Prerequisite:* Second year standing or permission of the instructor) (This course will alternate with 303; next offered 1989-90) NO(3-0)

Native speakers of Japanese may not obtain credit for 100, 149, 150, 200, 300, or 400, but may be allowed to take 490 for credit. A native speaker is defined in this context as a person who has spoken Japanese since childhood and who has received sufficient instruction in Japanese

**JAPA 303 (1½) MODERN JAPANESE LITERATURE IN TRANSLATION: FROM 1868 TO THE PRESENT DAY**

A survey, through selected English translations, of Japanese literature since the Meiji Restoration. During this period Japan has been in constant contact with the outside world. Dramatic changes have taken place under Western influence, yet much that is uniquely Japanese remains. The course will consider both the traditional and the modern elements in contemporary Japanese literature. (*Prerequisite*: second year standing or permission of the instructor) S(3-0)

**JAPA 358 (3) TOPICS IN JAPANESE LANGUAGE, LITERATURE, AND CULTURE**

This seminar will examine selected topics related to Japanese language, literature, or cultural studies. Topic and instructor will vary from year to year. (May be taken more than once for credit in different topics up to a maximum of 9 units) (*Prerequisite*: Will vary according to the topic; prospective students should consult with the instructor or with the Chairman) Y(3-0)

**JAPA 400 (3) READINGS IN MODERN JAPANESE PROSE**

A series of readings in modern Japanese, designed to broaden the students' acquaintance with the Japanese writing system, expand their working vocabulary, and give a firmer grounding to their general knowledge of the language. (*Prerequisite*: 300 or equivalent) Y(3-0)

**JAPA 490 (1½ or 3) DIRECTED STUDIES**

This course will normally involve readings and a research project in a particular area of Japanese Studies in which the student is qualified. The individual program of studies will be supervised by an appropriate faculty member. (May be taken more than once for credit in different topics up to a maximum of 6 units) (*Prerequisites*: Will vary according to the topic; prospective students should consult with the Chairman of the Department)

**PACIFIC STUDIES****PACI 200 (formerly 300) (3) CULTURAL CONTACT AND SOCIAL CHANGE IN THE PACIFIC REGION**

This is an interdisciplinary course serving as an introduction to the political, social and economic development of the Pacific Region from about 1500 to the present. Using selected case studies as illustrations, it depicts the causes, processes and effects of contact between the West on the one hand and the Far East, Southeast Asia and Oceania on the other. It includes such topics as prewar colonial activities, anticolonial movements and decolonization processes in the postwar era and the present economic and political relationships in the Pacific region; trans-Pacific migrations; ethnic relations; modernization and cultural change in the Pacific Region. This course provides an insight into Canada's role in the Pacific as well as a key to understanding peoples of Asian and Oceanic origin in British Columbia.

Y.F. Woon

Y(3-0)

**PACI 253 (formerly half of 252) (HIST 253) (1½) INTRODUCTION TO CHINESE CIVILIZATIONS**

The purpose of this course is to introduce the student to the traditional civilizations of China and Japan. Though a survey of many thousands of years in so short a space in time must of necessity be selective, the course will consider topics in political, social, intellectual, and economic history of the two civilizations. (This course is a prerequisite to 433A and 433B.) F(3-0)

**PACI 254 (HIST 254) (1½) CHINA AND THE WEST**

An introductory survey of modern Chinese history with particular emphasis on China's relations with the West. The period covered will be from the 17th century but most emphasis will be on the last 150 years. (This course is a prerequisite for all upper level courses in modern Chinese history.)

R.C. Crozier

S(3-0)

**PACI 255 (formerly half of 252) (HIST 255) (1½) INTRODUCTION TO JAPANESE CIVILIZATION BEFORE THE 19TH CENTURY**

The purpose of this course is to introduce the student to the traditional civilization of Japan from earliest times to the end of the 18th century. Topics in political times to the end of the 18th century. Topics in political, social, intellectual, cultural and economic history will be considered. (This course is a prerequisite to 435.) F(3-0)

**PACI 256 (HIST 256) (1½) INTRODUCTION TO MODERN JAPAN**

A survey of modern Japanese history from the 18th century to the present. After a review of the last century of "traditional Japan," the country's transformation to a modern state will be examined. The last section of the course will deal with the post 1945 period. (This course is a prerequisite for all upper level courses in modern Japanese history.)

S(3-0)

**PACI 311 (formerly 411/400) (1½) INTRODUCTION TO BIBLIOGRAPHY AND RESEARCH METHODS FOR PACIFIC STUDIES**

An introduction to bibliography and research methods in Pacific Studies. Attention will be focused on the location, evaluation, and use of source materials in Western languages concerning China, Japan and selected countries of Southeast Asia. Lectures will concentrate on the introduction of fundamental references and working principles; seminars and written assignments will aim at the application of these to specific problems or disciplines of interest to the students enrolled. Insofar as possible, seminar and written assignment topics will be chosen with the regional interest of the student in mind. (*Prerequisite*: 200 (or 300); preference in enrollment given to students majoring in Pacific Studies or a closely related field)

D.J. Bryant

F(3-0)

**PACI 312 (1½) MINORITY PROBLEMS AND THE STATE IN SOUTHEAST ASIA**

Using ethnic relations in Southeast Asian societies as case studies, this course questions the applicability of the "melting pot" theory to developing nations. It looks at minority problems in Southeast Asia as manifestations of power struggle between pressure groups and authority. (*Prerequisite*: 200 (or 300) or permission of the instructor)

Y.F. Woon

F(3-0)

**PACI 319 (1½) (formerly half of 320) SOCIAL STRUCTURE AND SOCIAL CHANGE IN CHINA**

This course attempts to provide interpretations for the "development of underdevelopment" of China: the various structural, cultural as well as external barriers obstructing China's various attempts to modernize and industrialize in the 19th and early 20th centuries. It also examines the counter culture of China in the form of secret societies and peasant movements which paved the way for the triumph of Mao in 1949. (*Prerequisites*: 200 (or 300), or 254 (or 252), or permission of the instructor)

Y.F. Woon

F(3-0)

**PACI 321 (1½) (formerly half of 330) SOCIAL STRUCTURE AND SOCIAL CHANGE IN JAPAN**

This course is an attempt to provide an understanding of the Meiji "miracle". It discusses the preconditions of development as well as the effects of economic growth on the various aspects of the Japanese society such as the polity, the urban and rural social structure and the Japanese family. It also deals with the problem of the applicability of the Meiji model to developing countries. (*Prerequisite*: 200 (or 300), or 256 (or 252), or permission of the instructor)

J.B. Moore

F(3-0)

**PACI 323 (1½) SOUTHEAST ASIA FROM 1800 TO 1945**

This course will focus on the transformation of Southeast Asia under the impact of Western imperialism from a multiplicity of political centers and circles of influence into nations with new structures and boundaries. It will introduce broad themes and controversial issues concerning that transformation, such as the influence of Islam, the nature of colonial rule, the introduction of capitalism, agricultural revolution, social divisions in plural society, and nationalism. (*Prerequisite*: 200 (or 300), or permission of the instructor) F(3-0)

**PACI 324 (ECON 324) (1½) ECONOMIC DEVELOPMENT IN SOUTHEAST ASIA**

Economic performance and economic institutions of countries in Southeast Asia with special reference to Indonesia, Malaysia, the Philippines, and Thailand; focus will be mainly on current issues and on international economic relations of the region with the rest of Asia and with North America. (*Prerequisite*: 200; and either ECON 100 or 201, or permission of the Department)

I.-D. Pal

F(3-0)

**PACI 359 (H A 359) (1½) ISLAMIC ART AND ARCHITECTURE IN SOUTHEAST ASIA**

A survey of the major architectural and artistic achievements of Islamic civilization in the Far East and Southeast Asia from the 16th century to the present day. Emphasis will be on the social, religious, and cultural impact of Islam on the arts and the

subsequent development of a distinctive Islamic tradition in this region. NO(3-0)

**PACI 364 (LING 364) (1½) LANGUAGES IN THE PACIFIC AREA**

A survey of languages spoken on the islands of the Pacific Ocean (Indonesia, Philippines, Melanesia, Micronesia and Polynesia), their genetic relationships and area groupings; specific languages and families are selected for more detailed discussion, illustrating issues of relevance to linguistic theory and analysis, applied linguistics and sociolinguistics. (Prerequisite: None; LING 100 recommended) NO(3-0)

**PACI 365 (LING 365) (1½) SEMINAR ON A PACIFIC AREA LANGUAGE: STRUCTURE, CONTEXT AND USAGE**

This course deals each time with a different specific language spoken in Pacific Asia (except for Mandarin Chinese and Japanese) and on the Pacific Islands. Topics covered include phonological and grammatical structure, genetic relationships to others of its family, social and cultural context, political importance, use in the mass media and education, literature in the language, and the problems of language policy and planning. The language considered in a given term may be Korean, Tagalog, Chamorro, Palauan, Ainu, Tongan, Hawaiian, Samoan, Cantonese, Fijian, pidgin English and so on. May be repeated for credit up to a maximum of six units. (Prerequisite: LING 100 or PACI/LING 364) NO(3-0)

**PACI 371 (H A 371) (1½) EARLY CHINESE ART**

An introductory survey of Chinese art from the Neolithic period through the Tang dynasty. Topics include the ritual vessels of the Bronze age, the impact of the Indian religion of Buddhism on Chinese arts, the rise of landscape painting, and the classic era of figure painting. Chinese histories and theories of the arts will be read in translation. K. Liscomb F(3-0)

**PACI 372 (H A 372) (1½) LATER CHINESE ART**

An introductory survey of Chinese art from the Five Dynasties era through the Ch'ing dynasty. The emphasis will be on the various genres and styles of painting, and on the role of the educated elite as painters, patrons, critics and theorists. Other topics include later Chinese sculpture and ceramics. K. Liscomb S(3-0)

**PACI 373 (H A 373) (1½) EARLY JAPANESE ART**

An introductory survey of Japanese art which traces the history of Japan's absorption and transformation of continental (Chinese and Korean) influences from prehistoric times through the Kamakura period. The emphasis is on Buddhist arts and the rise of the long narrative handscrolls known as *emakimono* during the Heian and Kamakura periods. NO(3-0)

**PACI 374 (H A 374) (1½) LATER JAPANESE ART**

An introductory survey of Japanese art from the Muromachi through the Edo periods. The emphasis is on the impact of Zen Buddhism on several art forms; the new castles with their paintings on sliding doors and folding screens; and the various schools of painting and printmaking active during the Edo period, an era during which revivals of native styles flourished along side experiments inspired by Chinese and Western art. NO(3-0)

**PACI 412 (1½) SEMINAR IN EAST AND SOUTHEAST ASIAN STUDIES**

A detailed analysis of some problems in East and/or Southeast Asia. Where appropriate, attention will be paid to Canada's relationships to the area. Details of topics to be covered can be obtained from the Program Chairman prior to registration. (Prerequisite: 200 (or 300) or permission of the instructor) J.B. Moore S(3-0)

**PACI 413 (1½) TOPICS IN AUSTRALASIA AND/OR PACIFIC ISLAND STUDIES**

An intensive study of selected major issues and topics in Australasia and/or the Pacific Islands. Students should consult the Chairman for details of the topics to be covered. (Prerequisite: 200 (or 300) or permission of instructor) F(3-0)

**PACI 414 (1½) SEMINAR IN AUSTRALASIA AND/OR PACIFIC ISLAND STUDIES**

A detailed analysis of some problems in Australasia and/or the Pacific Islands. Where appropriate, attention will be paid to Canada's relationships to the area. Details of topics to be covered can be obtained from the

Chairman prior to registration. (Prerequisite: 200 (or 300) or permission of the instructor) S(3-0)

**PACI 415 (1½) SEMINAR ON CANADA AND PACIFIC ASIA**

A survey course on Canada's economic and political relationships in Pacific Asia, examining the evolving patterns of and prospects for trade and investment flows, technology transfer, development aid, resources diplomacy, and political, security and defence relationships. (Prerequisite: 200 (or 300) S(3-0)

**PACI 419 (1½) (formerly half of 320) SEMINAR ON MODERN CHINESE SOCIETY**

This seminar traces the various attempts by China to modernize since 1949. Students are expected to discuss strategies, problems and prospects of development for the First Five Years Plan to the present Four Modernizations Program and the reactions of the Chinese people to such attempts. Special attention will be given to discussion of the disparities between the principles and actual practices of the the "Chinese model", its impact on the various aspects of social life in China as well as the appeal of the "Chinese model" of development to the Third World countries. (Prerequisite: 319, or permission of the instructor) (This course will alternate with 421) Y.F. Woon S(3-0)

**PACI 421 (1½) (formerly half of 330) SEMINAR ON MODERN JAPANESE SOCIETY**

A case study of the sociopolitical aspect of Japan's emergence as an industrialized nation in the postwar period and the prospects of further development in the 1980's in view of the world energy crisis, environmental degradation, and other domestic problems as well as the rise of the civic movement. Students are expected to participate, through seminar presentations and other means, in the discussion of modern Japan as an industrial society as well as the degree of continuity and change in Japan's social structure and processes. (Prerequisite: 321, or permission of the instructor)

**PACI 422 (1½) SEMINAR ON WORKERS AND UNIONS IN POSTWAR JAPAN**

This seminar will explore postwar changes in labour and labour organization in the context of the postwar "economic miracle." Emphasis will be upon the economic and political dynamics in the postwar transformation of the labour movement as well as upon wider social effects. It will take up such problems as enterprise unionism, labour and politics, women in the labour force, the decline of the union movement, and trends toward corporatism. (Prerequisite: 321 or permission of the instructor) NO(3-0)

**PACI 423 (1½ or 3) POSTWAR SOUTHEAST ASIA**

This course will examine the postwar experiences of four Southeast Asian countries—Indonesia, Malaysia, the Philippines, and Vietnam. Major themes will be decolonization and the rise of independent states, the composition of elites, problems of liberal democracy, revolutionary movements, class and ethnic divisions, economic development, and the role of the military. (Prerequisites: 323 or permission of the instructor) S(3-0)

**PACI 433A (HIST 433A) (1½) ANCIENT CHINA**

A study of the rise of Chinese civilization and Empire from the earliest times to approximately 200 A.D. Major themes will be the origins of Chinese civilization, the flowering of Chinese philosophy in the times of Confucius and Lao-tzu, the formation of a unified Empire, and the social foundations of the Imperial State. (Prerequisites: 253 or permission of the instructor) H. Hsaio FS(3-0)

**PACI 433B (HIST 433B) (1½) PRE-MODERN CHINA**

The development of Chinese civilization from the fall of the Han Empire in the third century A.D., through the reunification of China under the Tang, to the Manchu Conquest of China in 1644. Major attention will be given to the political and social dynamics of the Imperial State and to the cultural basis of Chinese civilization. (Prerequisites: 253 or permission of the instructor) S(3-0)

**PACI 434A (HIST 434A) (1½) MODERN CHINA**

China's encounter with the modern West from the 17th century to the mid 20th century. Emphasis on the collapse of the traditional order and the search for new political, social, and cultural forms. (Prerequisite: 254 or permission of the instructor) NO(3-0)

**PACI 434B (HIST 434B) (1½) CHINA IN REVOLUTION**

The roots of Chinese Communism, its rise to power, and the development of the People's Republic since 1949. Attention will also be given to China's new role in international politics. (*Prerequisite:* 254 or permission of the instructor) NO(3-0)

**PACI 435 (HIST 435) (1½) FEUDALISM IN JAPAN: THE WAY OF THE WARRIOR FROM THE 12TH TO THE 19TH CENTURY**

A study of politics, economics, society and culture in medieval and Tokugawa Japan with emphasis upon the role of the samurai class. (*Prerequisite:* 255 or permission of the instructor) (3-0)

**PACI 436A (HIST 436A) (1½) JAPAN'S MODERN TRANSFORMATION: FROM FEUDAL COUNTRY TO NATION-STATE**

An examination of a rapidly changing Japan from the time of the "opening" of the country by the Western powers in the middle of the 19th century to the time of the Pacific War and its aftermath in the middle of the 20th century. The format requires student participation such as oral presentations, written papers, and class discussion throughout the course. F(3-0)

**PACI 436B (HIST 436B) (1½) 20TH CENTURY JAPAN**

A study of modern Japanese society and culture in the 20th century. Special attention will be paid to the influences of Westernization and industrialization upon traditional modes of thought, work, everyday life and creative endeavours. Changes in family life in the cities and in the countryside will be examined. (*Prerequisite:* None) S(3-0)

**PACI 437 (HIST 437) (1½) JAPANESE WOMEN FROM THE 6TH TO THE 20TH CENTURY**

A study of the history of Japanese women from the time of the ancient communities, through the golden age of classical literature, different phases of Japanese feudalism, disruptions and continuities of the post-1868 nation. The format requires student participation such as oral presentations, written papers, and class discussion throughout the course. (Not open for credit to students who have studied this topic under 438) F(3-0)

**PACI 438 (HIST 438) (1½ or 3) TOPICS IN EAST ASIAN HISTORY**

An intensive study of selected aspects of East Asian history. (Students are advised to consult the Department for information regarding the subjects to be considered. May be taken for credit more than once in different topics with permission of the Chairman of the Department) (*Prerequisite:* Relevant course work and permission of the instructor) (3-0)

**PACI 439 (HIST 439) (1½ or 3) SEMINAR IN EAST ASIAN HISTORY**

Selected topics in East Asian history. (Enrollment limited. Priority in registration given to honours and major students in history, but others may be admitted with consent of instructor. Students are advised to consult the Department about the topics to be considered.) (May be taken more than once in different topics with permission of the Chairman of the Department) (*Prerequisite:* Relevant course work and permission of the instructor)

"Chinese Literature"  
R.C. Crozier, R. King

F(3-0)

**PACI 442 (GEOG 442) (1½) GEOGRAPHY OF CHINATOWNS AND CHINESE MIGRATION**

This seminar studies the urban overseas Chinese communities in the Pacific Rim countries. Major topics of discussion will include migration theory, concept of culture conflict, assimilation and acculturation, urban ethnicity, home environment of Chinese emigrants, attitudes and policies of host society towards Chinese immigrants and imprints of Chinese culture on the urban landscape of the receiving country. Emphasis will be placed on the Chinese migration to Canada and the study of the urban problems of Canadian Chinatowns.

C.-Y. Lai

S(3-0)

**PACI 447 (GEOG 447) (1½) URBAN PROBLEMS OF PACIFIC RIM DEVELOPING COUNTRIES**

The course examines the fundamental differences between urban organization in developed and developing countries, and studies the political, cultural and socioeconomic conditions under which cities in Pacific Rim developing countries are growing. (*Prerequisite:* GEOG 349 or permission) S(3-0)

**PACI 475 (H A 475) (1½ or 3) THE ART AND ARCHITECTURE OF SOUTHEAST ASIA**

An examination of the sculpture and architecture of Southeast Asia of the precolonial periods, with emphasis on those of Cambodia and Indonesia; these works will be studied within their religious, social and political contexts. NO(3-0)

**PACI 490 (1½ or 3) DIRECTED STUDIES**

This will normally involve readings and a research project in a particular area of Pacific Studies, in which the student is qualified. The individual program of studies will be supervised by an appropriate faculty member designated by the Pacific Studies Committee. (May be taken more than once in different topics with the permission of the Chairman of the Department, up to a maximum of 6 units) (*Prerequisite:* 200 (or 300)

## DEPARTMENT OF PHILOSOPHY

John M. Michelsen, B.A., M.A., Ph.D. (Wash.), Associate Professor and Chairman of the Department

Rodger G. Beehler, B.A. (Man.), B.Phil. (Oxon.), Ph.D. (Calgary), Professor

Eike-Henner W. Kluge, B.A. (Calgary), A.M., Ph.D. (Mich.), Professor  
Charles G. Morgan, B.S. (Memphis St.), M.S., Ph.D. (Johns Hopkins), M.Sc. (Alta.), M.Sc. (U. of Vic.), Professor

Charles B. Daniels, A.B. (Chicago), D. Phil. (Oxon.), Associate Professor  
Alan R. Drengson, B.A., M.A. (Wash.), Ph.D. (Ore), Associate Professor  
Monika Langer, B.A., M.A., Ph.D. (Tor), Associate Professor

Jeffrey E. Foss, B.A. (Alta.), M.A., Ph.D. (W. Ont.), Assistant Professor  
James O. Young, B.A. (S. Fraser), M.A. (Waterloo), Ph.D. (Boston), Assistant Professor

### GRADUATE PROGRAM

For information on studies leading to the M.A. degree, see page 229, for graduate courses, see page 120.

### GENERAL, MAJOR AND HONOURS PROGRAMS

**General** — 9 units of courses in Philosophy numbered 300 or above with all prerequisites satisfied.

**Major** — 21 units of courses in Philosophy comprising:

- Introduction to Philosophy (100)
- either Applied Logic: I (201) and Applied Logic: II (203) or Theoretical Logic (304A and 304B)
- Moral Philosophy (302)

- either The Rationalists (306) or The Empiricists and Kant (310)
- Plato (421) and Aristotle (422)
- 6 additional units in philosophy courses numbered 300 or higher.

NOTE: Although not required, students are encouraged to include at least one of the following: Existentialism (211), Philosophy of Religion (214), Philosophy of Science (222A/B), Aesthetics (242), and Medieval Philosophy (245).

**Honours** — 30 units in courses in Philosophy comprising:

- Introduction to Philosophy (100)
- either Applied Logic: I (201) and Applied Logic: II (203) or Theoretical Logic (304A and 304B)
- Moral Philosophy (302)
- The Rationalists (306)
- The Empiricists and Kant (310)
- Plato (421) and Aristotle (422)
- 12 additional units in philosophy of which at least 6 must be in courses numbered 300 or higher.

NOTE: To obtain a First Class Honours degree it is required that a student have (1) a graduating average of 6.50 or higher, (2) at least a first class average of 6.50 in all credit courses taken in Philosophy, and (3) at least a 7.00 average in all upper level courses completed in fulfillment of the minimum requirement of the honours program in philosophy. Upon completing the program, any student who meets requirement (1), but not (2) or (3), has the option of graduating with a first Class Major degree instead of with a Second Class Honours degree. To obtain a Second Class Honours degree, a student must have at least a 3.50 graduating average and have at least a 5.00 average in all credit courses taken in Philosophy.

## UNDERGRADUATE COURSES

NOTE: Courses in the 100 series are broader in scope than those in the 200 series, but neither type should present any difficulty for the beginner. Both types are recommended for students in any program whether they plan to continue in Philosophy or not, and may be taken in any year; e.g. courses in the 200 series may be taken in the first as well as in later years. Other courses in Philosophy may be taken by satisfying the listed prerequisites or with permission of the Instructor.

Fuller information on each course will be issued by the Department. This will include the reading required and the name of the Instructor. Students are advised to ask the Department for copies of the annual Departmental handbook prior to registration. Not all courses will be offered every year. To meet the requirements for a Major or Honours program in the minimum number of years, students should plan accordingly:

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### PHIL 100 (3) INTRODUCTION TO PHILOSOPHY

A beginner's investigation of questions which govern attitudes towards life such as: Can the unjust man be happy? Is what is right simply a matter of opinion? Does God exist? Is anything certainly true? The course will include a first hand study of major philosophers, and, consequently, of some of the more original contributions to our intellectual heritage. But the overriding concern is to teach the student how to respond in a coordinated, controlled, and critical way to the sorts of question which these philosophers have raised or provided. (NOTE: This is a multisectioned course, one section of which is sometimes offered entirely in one term with 6 lecture hours per week.) Typical readings are from such texts as Plato's *Republic*, Aristotle's *Nicomachean Ethics*, Descartes' *Meditations*, Spinoza's *Ethics*, Berkeley's *Three Dialogues Between Hylas and Philonous*, Hume's *Dialogues Concerning Natural Religion*, Nietzsche's *Beyond Good and Evil*, Mill's *On Liberty*, Ryle's *Dilemmas*, and more recent writing. But problems, types of approach, and texts vary from section to section.)

C.B. Daniels, A.R. Drengson, J.E. Foss, J.O. Young Y(3-0) or S(6-0)

### PHIL 201 (1½) APPLIED LOGIC: I

The course is primarily concerned with the analysis of simple argument forms in natural language. Close attention is paid to the different uses of language in an argumentative context. There is a treatment of elementary principles of inductive logic, decision making, syllogistic reasoning, and informal fallacies. (The course is designed as a first course in logic for students with little or no symbolic orientation; it may be taken before or after 203. 304 is recommended for science students.)

J.E. Foss F(3-0)

### PHIL 203 (1½) APPLIED LOGIC: II

The course is designed to teach students to generate deductively valid arguments and to detect invalid arguments. Correct inference rules for sentential arguments and quantificational arguments are identified and treated from a purely syntactical point of view. A rigorous treatment of the semantic theory for sentential logic and quantification logic is also presented. (The course is designed as a first course in logic for students with little or no symbolic orientation; it may be taken before or after 201. 304 is recommended for science students.)

J.E. Foss S(3-0)

### PHIL 211 (1½, formerly 3) INTRODUCTION TO EXISTENTIALISM

An introduction to the themes and method of existentialism. The course will survey the writings of a number of existentialists, including representative literary works. Questions such as the following will be addressed: Can the individual realize an authentic form of existence in a technological society dedicated to the ideals of comfort, efficiency, and security? Why have existentialists been so vehemently attacked and how have they responded? Is existentialism compatible with Marxism, or are the two irreconcilable? The figures and works chosen may vary from year to year.

F(3-0)

### PHIL 214 (1½, formerly 3) PHILOSOPHY OF RELIGION

A consideration of some of the conclusions that have emerged from a philosophical examination of such religious questions as: the existence of God, survival of death, the problem of evil, the significance of religious ignorance, etc. Class discussion will be much emphasized.

A.R. Drengson F(3-0)

### PHIL 222A (1½) PHILOSOPHY OF SCIENCE: METHODOLOGICAL ISSUES

This course will deal with philosophical questions raised by structural

and methodological aspects of the various sciences. Topics may include an examination of changing conceptions of scientific methodology, the logical structure of scientific laws and theories, an analysis of patterns of explanation, and the nature of scientific confirmation. (May be taken before or after 222B)

F(3-0)

### PHIL 222B (1½) PHILOSOPHY OF SCIENCE: SOCIAL AND ETHICAL ISSUES

This course will deal with social and ethical aspects of philosophy of science. Topics may include the supposed value neutrality of science, the ethics of human and animal experimentation, the social and ethical responsibilities of scientists, community control of scientific research, and the social determination of the content of scientific theory. (May be taken before or after 222A)

S(3-0)

### PHIL 232 (1½) MORAL PROBLEMS OF CONTEMPORARY SOCIETY

An investigation of certain moral problems which might be called social problems as well. One or more of such topics as the following will be discussed: sexual relations, censorship, suicide, capital punishment; poverty; international hostilities. Differing moral positions concerning the issue(s) chosen will be identified, and their justifications sought out and examined. Students should consult the annual departmental handbook for a more specific description of the course for a given year.

S(3-0)

### PHIL 233 (1½) PHILOSOPHY OF EDUCATION

A philosophical inquiry into education. Among the questions to be asked are: What are we seeking to do in educating people? What sort of difference is education supposed to bring about in individuals, and in society? How does educating persons differ from indoctrinating them? Is it the purpose of education to qualify people for employment? Is education essentially a conservative force in society? Does it corrupt or liberate?

NO(3-0)

### PHIL 235 (1½) ETHICS OF VIOLENCE AND WAR

An investigation of the ethical issues attending violent political protest or revolt, military action in a nuclear age, and terrorism for political or other ends.

J.O. Young

S(3-0)

### PHIL 238 (1½, formerly 3) PHILOSOPHY IN LITERATURE

The purpose of this course is to explore various philosophical theories and themes as these find expression in literature. In some years the course may be devoted to an examination of a single theme as it emerges in distinct periods and writings. Readings may range over the literature of many countries and will not necessarily be confined to works in the Western tradition.

NO(3-0)

### PHIL 242 (3) AESTHETICS

This course is an introductory examination of such basic philosophical problems of aesthetics as: What is a work of art? Do works of music differ from each other in much the same way as works in the plastic arts differ from each other? What role, if any, does consideration of emotions and intentions legitimately play in evaluation of a work of art? How does forgery differ from plagiarism? Time will be devoted to the discussion of the philosophical problems particular to each major art form, as well as to problems arising from comparison between these art forms. Texts: Aristotle, *Poetics*; Tolstoy, *What is Art?*; Hanslick, *The Beautiful in Music*; Gombrich, *Art and Illusion*; Goodman, *Language of Art* NO(3-0)

### PHIL 245 (3) MEDIEVAL PHILOSOPHY

The purpose of this course is to give the student some insight into the depth and richness of the philosophical, religious and political thought of the middle ages, and to convey an appreciation of the complexity and sophistication of medieval intellectual endeavour. Since Western thought was heavily influenced by Islamic philosophies and by mystical speculations, a special section of the course will be devoted to the philosophy of Islam and its impact on the West, and another to an examination of medieval mysticism.

NO(3-0)

### PHIL 269 (3) THE SELF, SOCIETY AND CONTEMPORARY CRITICAL THOUGHT

An introductory philosophical investigation of the assumptions behind, and the arguments advanced by, selected contemporary writings of influence. The writings chosen for examination may vary from year to year, but in each case will address fundamental questions about contemporary social life, and the implications of that life for human well-being. The majority of writings will be drawn from disciplines other than philosophy, and one example of a kind of question that might be raised by one or more of the works selected is: upon what does a person's conception of

him- or herself depend, and how far is this conception sensitive to the way other persons appreciate, or treat, him or her?

R.G. Beehler Y(3-0)

### PHIL 287 (3) EASTERN PHILOSOPHY

An introductory study of the major philosophic traditions of the East: Confucian, Taoist, Buddhist and Hindu; with comparisons made between Eastern and Western philosophies. Among the topics discussed are major teachings about mysticism; the divine; the unified self; the nature of the cosmos; and the right way to live. An effort will be made to illustrate the methods of philosophizing characteristic of the philosophers discussed. Texts: Readings include the *Tao Te Ching*, *The Analects*, *The Upanishads*, and others. NO(3-0)

### PHIL 302 (3) MORAL PHILOSOPHY

An inquiry into the foundation of moral reasoning and moral judgment, to be conducted by intensive study of selected seminal writings in moral philosophy. (*Prerequisite*: 6 units of philosophy or written permission of the instructor)

R.G. Beehler Y(3-0)

### PHIL 304A (1½) THEORETICAL LOGIC: I

The course is primarily concerned with a treatment and justification of propositional logic from a theoretical point of view. Ideal formal languages will be developed, and their relationship to natural languages will be discussed. Syntactic and semantic theories will be formalized for the analysis of complex deductive arguments. The metatheory of propositional logic, relating the syntactic theories and the semantic theories, will be developed in detail. Topics to be formally treated include consistency, compactness, soundness, completeness and interpolation. (The course is designed as a first course in logic for students with a symbolic orientation; it may also be taken as a further course in logic following 201 and/or 203. 304 is recommended for science students.) (*Prerequisite*: None)

F(3-0)

### PHIL 304B (1½) THEORETICAL LOGIC: II

The course is a continuation of Philosophy 304A and is concerned with a treatment and justification of quantificational logic from a theoretical point of view. Ideal formal languages will be developed, and their relationship to natural languages will be discussed. Syntactic and semantic theories will be formalized for the analysis of complex deductive arguments. The metatheory of quantificational logic, relating the syntactic theories and the semantic theories, will be developed in detail. Topics to be formally treated include consistency, compactness, soundness, completeness, interpolation, and elementary theory. (*Prerequisite*: Philosophy 304A or permission of the instructor)

S(3-0)

### PHIL 306 (3) THE RATIONALISTS

The main purpose of this course is to afford the student an in-depth study of the so-called "continental rationalists". To this purpose, the positions of representative figures will be examined in some detail and an attempt made to relate them to each other. Full emphasis will be placed on tracing the results to the rationalists' preoccupation with a *a priori* necessary truths and the principle of sufficient reason vis-à-vis their theories of perception and knowledge. (*Prerequisite*: 100 or permission of the instructor)

E.-H.W. Kluge Y(3-0)

### PHIL 310 (3) THE EMPIRICISTS AND KANT

In the first term, a study of the major writings of Locke, Berkeley and Hume, with emphasis on metaphysics and epistemology. During the second term, an intensive study of Kant's epistemology and metaphysics, principally as presented in *The Critique of Pure Reason*. (*Prerequisite*: 100 or permission of the instructor)

NO(3-0)

### PHIL 311 (1½) EXISTENTIALIST THINKERS

This course will focus on one or two of the great philosophers in the tradition of existentialism and phenomenology, such as Nietzsche, Sartre, Merleau-Ponty, Camus, Kierkegaard and Heidegger. The philosophers chosen for study in any given year will be announced in the departmental handbook. (*Prerequisite*: 211 or permission of the instructor)

S(3-0)

### PHIL 324 (3) PHILOSOPHY OF HISTORY

Major theories of history, such as those of Hegel, Marx, Spengler, Toynbee, and Niebuhr will be examined, as well as questions related to the conduct of historical inquiry. In addition, attention will be devoted to contemporary theories of history that attempt to explain the significance and direction of the 20th century. (*Prerequisite*: 100 or HIST 234, 236, 240, or 242, or permission of the instructor)

NO(3-0)

### PHIL 326 (3) SOCIAL AND POLITICAL PHILOSOPHY: ROUSSEAU AND MARX

An inquiry into some foundational questions concerning human society and human good. Among the questions to be asked are: What are the causes of inequality and unfreedom in human societies? What are the bases of social power? Can political institutions provide the good society? Is achievement of the good society dependent upon the understanding and moral sensibility of individuals? Are the understanding and sensibility of persons a function of the kind of society in which they live? The centre of gravity of the study will be selected writings by Rousseau and Marx. But one or two important contemporary writings will be studied as well. Texts: J.-J. Rousseau, *Discourse on the Origin of Inequality*; *The Social Contract*; K. Marx, *The German Ideology*; *The Communist Manifesto*; *Wage, Labour and Capital*; Joshua Cohen and Joel Rogers, *On Democracy*; Richard Miller, *Analyzing Marx: Morality, Power, and History*. (*Prerequisite*: a previous course in philosophy, or written permission of the instructor) (Not open to students with credit in any of 325, 327, or 329)

NO(3-0)

### PHIL 328 (1½) PHILOSOPHY OF LAW

What, exactly, is law? How far, for example, does a law's being a law depend upon there being a threat of punishment if one does not obey? (What then distinguishes a society living under law from a society living under the domination of an alien military regime?) Is one always obligated to obey the law? Even an unjust law? Does one owe a duty of obedience to a corrupt government? How far do courts determine the content of the laws? Should the laws enforce morality? Should the laws protect persons from themselves? (*Prerequisite*: a previous course in philosophy, or written permission of the instructor)

R.G. Beehler F(3-0)

### PHIL 330 (1½) PROFESSIONAL AND BUSINESS ETHICS

An investigation into ethical problems and concerns that arise in the professions and business, irrespective of the particular nature of the business or profession. These include truth telling, confidentiality, paternalism, competition, monopolies, public vs. private interests or obligations, codes of ethics, ethics of cost benefit analysis. The aim of the course is not necessarily to produce definitive solutions but to foster an awareness of the ethical issues, and to provide tools which may help to resolve them. Texts: M. Bayles, *Professional Ethics*; R. de George, *Business Ethics*; and Codes of ethics of various professional associations.

E.-H.W. Kluge F(3-0)

### PHIL 331 (1½) ISSUES IN BIOMEDICAL ETHICS

An investigation into the various ethical problems and concerns that arise in the professional medical context. Issues such as the nature of the physician-patient relationship, informed consent and right to know, fetal experiments and human experiments in general, euthanasia, insanity-treatment, right to treatment, etc. will be discussed. The aim of this course is not to give definitive solutions but to inculcate an awareness and understanding of the nature of the problems involved. (*Prerequisite*: A course in Philosophy or permission of the instructor)

E.-H. W. Kluge S(3-0)

### PHIL 332 (1½) PHILOSOPHY AND TECHNOLOGY

An inquiry into the nature of technology and its value and relevance to the human condition. The conceptual implications of the technological order on personal and interpersonal relationships and perceptions will be explored. Examples of topics to be addressed are: the distinction between tools and technology; technological development and values; engineering ethics and the ethics of technology transfer; technology and alienation; the domination of human life by technology; the mastery of technology; appropriate technology; art and technology; comparative analysis of different philosophies of technology. (*Prerequisites*: Third or fourth year standing, or permission of the instructor)

A.R. Drenson S(3-0)

### PHIL 333 (ES314) (1½) PHILOSOPHY AND THE ENVIRONMENT

A philosophical investigation of the moral and conceptual dimensions of environmental problems. Different philosophies of 'man and nature' will be compared. Some of the topics to be examined are: human wants and human satisfactions; nature and spiritual values; community; human obligations to other animals; defining quality of life. (*Prerequisite*: Third or fourth year standing, or permission of instructor)

A.R. Drenson F(3-0)

### PHIL 334 (3) PHILOSOPHY OF LANGUAGE

Is a competent theory of language likely to advance our philosophic understanding of philosophically perplexing concepts? This and other

questions are pursued with special attention to such matters as: whether there yet exists an adequate semantical analysis of meaning (Carnap); whether man possesses an innate genetic endowment with which alone standard linguistic competence is possible (Chomsky); whether meaning can be adequately accounted for in terms of men's dispositions to respond overtly to socially observable stimulations (Quine); whether a satisfactory theory of meaning needs to take into account various types of purpose with which utterances are made (Austin). (*Prerequisites*: 6 units of philosophy, or permission of the instructor)

J.O. Young Y(3-0)

#### PHIL 342A (1½) MINDS AND MACHINES: I

The course is concerned with philosophical problems associated with the question of whether or not one can build a machine which thinks, reasons, learns from experience, understands natural language, is creative, feels pain, or has emotions. Topics may include mechanical analogues of life processes; the debate over mechanisms, organicism, and vitalism; mechanical self reproduction and evolution; free will and predictability. (*Prerequisite*: One full year course in at least one of the following areas: computing science, neurophysiology, philosophy or psychology; or permission of the instructor) NO(3-0)

#### PHIL 342B (1½) MINDS AND MACHINES: II

The course is a continuation of 342A. Topics may include: the top-down approach to artificial intelligence as advocated in the Turing Test; the analogical argument for the existence of other minds and its relation to the bottom-up approach to artificial intelligence; mechanical parallels of the mind-body problem; the relationship of Godel's incompleteness results to the possibility of mechanical minds. (*Prerequisite*: 342A or permission of the instructor) NO(3-0)

#### PHIL 348 (1½ or 3) DIRECTED STUDIES IN THE HISTORY OF PHILOSOPHY

Under the supervision of a faculty member and with the approval of the Chairman of the Department. (*Prerequisite*: 6 units in Philosophy, or permission of the instructor) (May be taken twice for a total of 3 units)

#### PHIL 379 (CLAS 379) (formerly one-half of 207) (1½) EARLY GREEK HISTORICAL AND PHILOSOPHICAL THOUGHT

A study of the transition from the prescientific, mythical world views to more "scientific" ways of explaining the nature of the cosmos, man's place in it, and the course of human history. An attempt will be made to assess the intellectual and social significance of this development by placing in their historical context the writings of the philosophers and historians from the early 6th Century to the time of Socrates and the sophists. Some attention will also be given to the literature and art of the period. F(3-0)

#### PHIL 403 (1½) PHILOSOPHICAL LOGIC

The primary objective is to determine the philosophical limitations of classical logic. By classical logic is meant bivalent first order quantification theory, together with the usual extensions of it adequate for identity theory and formal number theory. Among the questions that may be raised are: Is there satisfactory philosophical motivation for quantum logic or for many-valued logic generally? Does a good theory of reference counsel the rejection of bivalence? Does classical first order logic inhibit a philosophical understanding of existence, identity and predication? (*Prerequisites*: 201/203 or 304 (or former 202), or MATH 332 or 333, and an additional 3 units of Philosophy, or permission of the instructor) S(3-0)

#### PHIL 405 (3) 19TH CENTURY PHILOSOPHY

A main emphasis will be on the post-Kantian development in German philosophy; Fichte, Hegel, Schopenhauer, Marx, Nietzsche. Some attention may also be given to the developments in France (e.g. Comte), Britain (e.g. Mill, Spencer, Bradley), and America (e.g. Royce, Peirce, James). The content of the course may vary from year to year, and the student should consult the annual Departmental handbook for a more specific description of the course for a given year. (*Prerequisites*: 9 units of philosophy, or permission of the instructor. 306 and 310 are both recommended as background for the course.) Y(3-0)

#### PHIL 408 (3) CONTEMPORARY EUROPEAN PHILOSOPHY

A study of one or more of the major developments in recent European philosophy, such as phenomenology, hermeneutics, structuralism, and critical theory (the Frankfurt School). Among philosophers whose works may be selected for study are: Husserl, Heidegger, Sartre, Merleau-Ponty, Ricoeur, Levi Strauss, Foucault, Althusser, Horkheimer, Habermas, and

Lukacs. (The focus of the course may vary from year to year, and interested students should consult the departmental handbook for more detailed information about the course for any given year.) (*Prerequisite*: 6 units in Philosophy, or permission of the instructor) NO(3-0)

#### PHIL 414 (3) PHILOSOPHY OF MIND

A study of some of the questions about mind that are of relevance both to philosophy and the various empirical sciences that deal with man: What is a person? Is he two things — a body and a mind? Can he exist in a disembodied state? Is his intelligence just a capacity for adaptive and discriminative behaviour? Or does it depend upon inner and private mental processes? Is introspective evidence in some way unscientific? Are mental processes just brain processes? Can one person be in two bodies or two persons in the same body? (*Prerequisites*: 100, 306 or 310, or permission of the instructor)

J.E. Foss Y(3-0)

#### PHIL 416 (1½) KNOWLEDGE AND CERTAINTY

An analysis of the concepts of knowledge, certainty, evidence, confirmation, etc. mainly in the context of philosophical scepticism about our knowledge of the external world, other minds, the past, and the future. (*Prerequisite*: 6 units of Philosophy, or permission of the instructor) NO(3-0)

#### PHIL 418 (1½) THEORY OF PERCEPTION

A study of philosophical issues that pertain both to the psychology of perception and the theory of knowledge. The respective merits of realist, representationalist and phenomenalist theories of perception will come under examination. (*Prerequisite*: 6 units in Philosophy or permission of the instructor)

E.-H.W. Kluge S(3-0)

#### PHIL 421 (1½) PLATO

A study of some central philosophical issues in Plato's middle and late dialogues. The content of the course may vary from year to year, and the student should consult the annual Departmental handbook for a more specific description of the course for a given year. (*Prerequisite*: 9 units of Philosophy. 379 and CLAS 380 are both recommended as background for the course.)

J.M. Michelsen F(3-0)

#### PHIL 422 (1½) ARISTOTLE

A study of a main work or a central problem in Aristotle's philosophy. The content of the course may vary from year to year, and the student should consult the annual Departmental handbook for a more specific description of the course for a given year. (*Prerequisite*: 9 units of Philosophy. 379 and CLAS 380 are both recommended as background for the course. Although 421 is not a prerequisite, it is recommended that students intending to take 422 take 421 first.)

J.M. Michelsen S(3-0)

#### PHIL 431 (1½) SEMINAR IN BIOMEDICAL ETHICS

A seminar offering an in depth study of selected topics in biomedical ethics. Course content will vary, but will usually include such topics as informed consent, experimentation, professional/client and professional/professional relationship, allocation of resources, administrative procedures, etc. Methodology will include the use of video tape role plays and student presentation/analysis. (*Prerequisite*: 331 or permission of the instructor) (Limit of 20 students) NO(3-0)

#### PHIL 432 (3) METAPHYSICS

An inquiry into some of the more general distinctions upon which our notion of reality depends. The course may vary in emphasis from year to year. Problems for investigation will include, or relate to, some of the following: On what basis do we distinguish between substance, quality and relation? Do any of the categories have a more privileged type of being than the rest? What are universals? Must every event have a cause? What sort of necessity is causal necessity? What distinguishes an action from mere happening? Do human agents have free will? What distinguishes temporal from spatial order? Why is our language tensed? (*Prerequisite*: 6 units of Philosophy or permission of the instructor) NO(3-0)

#### PHIL 448 (1½ or 3) DIRECTED STUDIES IN PHILOSOPHICAL TOPICS

Under the supervision of a faculty member and with the approval of the Chairman of the Department. (*Prerequisite*: 9 units of Philosophy, or permission of the instructor) (May be taken twice for a total of 3 units)

**GRADUATE COURSES**

For information of the Department's graduate program and admission requirements, consult page 214.

(Not offered 1988-89)  
**PHILOSOPHY**

**PHIL 500 (3) PROBLEMS IN PHILOSOPHY****PHIL 501A (1½) ISSUES IN SOCIAL AND POLITICAL PHILOSOPHY****PHIL 501B (1½) ISSUES IN SOCIAL AND POLITICAL PHILOSOPHY****PHIL 501T (3) HISTORY AND PHILOSOPHY OF SCIENCE**

A study of some turning points in the history of science with particular attention to the conceptual issues underlying scientific theory and practice. (*Prerequisite:* Open only to teachers enrolled in the M.Ed. Program)

**PHIL 502 (1½ or 3) DIRECTED STUDIES**

(May be repeated for credit provided course content differs)

**PHIL 599 (9) M.A. THESIS**

(Grading: INP, Com, N or F)

**CONTEMPORARY SOCIAL AND POLITICAL THOUGHT****CSPT 500 (1½) CONTEMPORARY SOCIAL AND POLITICAL THOUGHT**

An interdisciplinary seminar on topics such as language and social theory, tradition and modernity, democracy and freedom, global order and disorder, structuralism and post structuralism, feminism and Marxism. (Content will vary from term to term) (May be repeated for a maximum of 6 units of credit) (Open to M.A. or Ph.D. students in the Social Sciences and the Humanities with permission of the Director of the Program)

**CSPT 590 (1½ or 3) DIRECTED READINGS**

Individual study, under the direction of a participating faculty member, of a topic or topics in contemporary social and political thought. (A student in the Program may substitute PHIL 590, POLI 590 or SOCI 590 for CSPT 590, with permission of the Director of the program.) (May be repeated for credit, provided course content differs)

**DEPARTMENT OF PHYSICS AND ASTRONOMY**

John T. Weaver, B.Sc. (Bristol), M.Sc., Ph.D. (Sask.), Professor and Chairman of the Department

Alan Astbury, B.Sc., Ph.D. (Liverpool), R.M. Pearce Professor of Physics

George A. Beer, B.A.Sc., (Brit. Col.), Ph.D. (Sask.), Professor

Douglas A. Bryman, B.S. (Syracuse), M.S. (Rutgers), Ph.D. (Virginia Poly. Inst. and St. U.), Adjunct Professor (1984-88)

R. Montgomery Clements, B.A.Sc., M.A.Sc., (Brit. Col.), Ph.D. (Sask.), Professor

Fred I. Cooperstock, B.Sc. (Man.), Ph.D. (Brown), Professor

John M. Dewey, B.Sc., Ph.D. (London), Professor

Robert W. Dobinson, B.Sc. (S'ton.), Ph.D. (Lond.), Adjunct Professor (1986-88)

Harry W. Dosso, B.A., M.Sc., Ph.D. (Brit. Col.), Professor

David M. Farmer, B.Com., M.Sc. (McGill), Ph.D. (Brit. Col.), Adjunct Professor (1987-88)

F. David A. Hartwick, B.Eng. (McGill), M.A., Ph.D. (Tor.), Professor (Astronomy)

Robert E. Horita, B.A.Sc., M.A.Sc., Ph.D. (Brit. Col.), Professor

Roy D. Hyndman, B.A.Sc., M.A.Sc. (Brit. Col.), Ph.D. (A.N.U.), Adjunct Professor (1986-88)

Edward Irving, B.A., M.A., Sc.D. (Cantab.), D.Sc. (Carleton, Memorial), F.R.S.C., F.R.S., Adjunct Professor (1987-89)

J. Erwin Lokken, B.Sc., M.Sc. (W. Ont.), Ph.D. (Brit. Col.), Adjunct Professor (1986-88)

Donald E. Lobb, B.E., M.Sc., Ph.D. (Sask.), Professor

Grenville R. Mason, B.A.Sc., (Brit. Col.), M.Eng. (McMaster), Ph.D. (Alta.), Professor

Howard E. Petch, B.Sc., M.Sc. (McMaster), Ph.D. (Brit. Col.), D.Sc. (McMaster), LL.D. (Waterloo), F.R.S.C., Professor

Charles E. Picciotto, A.B., M.A., Ph.D. (Calif.), Professor

Lyle P. Robertson, B.A., M.A., Ph.D. (Brit. Col.), Professor

Colin D. Scarfe, B.Sc., M.Sc. (Brit. Col.), Ph.D. (Cantab.), Professor (Astronomy)

Robert W. Stewart, B.Sc., M.Sc. (Qu.), Ph.D. (Cantab.), D.Sc. (McGill), LL.D. (Dal.), F.R.S.C., F.R.S., Visiting Professor and Interim Director, Centre for Earth and Ocean Research (1987-89)

Jeremy B. Tatum, B.Sc. (Bristol), Ph.D. (London), Professor (Astronomy)

Sidney van den Bergh, A.B. (Princeton), M.Sc. (Ohio St.), Dr. rer Nat. (Göttingen), F.R.S.C., Adjunct Professor (1987-89)

Arthur Watton, B.Sc. (Imp. Coll., London), Ph.D. (McMaster), Professor

J. Anthony Burke, A.B., A.M., Ph.D. (Harvard), Associate Professor (Astronomy)

Bruce T.E. Campbell, B.A.Sc. (Brit. Col.) M.Sc., Ph.D. (Tor.), Adjunct Associate Professor (1987-89)

Gemart B. Friedmann, B.Sc., M.A. (Madras), Ph.D. (Brit. Col.), Associate Professor

Ann C. Gower, B.A., Ph.D. (Cantab.), Adjunct Associate Professor (1987-89)

Arthur Olin, B.Sc. (McGill), Ph.D. (Harvard), Adjunct Associate Professor (1987-89)

Christopher J. Pritchett, B.Sc. (Sask.), M.Sc., Ph.D. (Tor.), Associate Professor

Harbajan S. Sandhu, B.A., B.Sc., M.Sc. (Panjab), Ph.D. (Brit. Col.), Associate Professor

Don A. Vandenberg, B.Sc. (Lethbridge), M.Sc. (U. of Vic.), Ph.D. (A.N.U.), Associate Professor

Chi-Shiang Wu, B.S. (Nat. Taiwan U.), M.S., Ph.D. (West. Res.), Associate Professor

Richard Dubois, B.Sc. (McGill), M.Sc., Ph.D. (Brit. Col.), Adjunct Assistant Professor (1986-88)

Richard K. Keeler, B.Sc. (McGill), M.Sc., Ph.D. (Brit. Col.), Adjunct Assistant Professor (1986-88)

Charles R. Card, B.A. (Reed Coll.), Senior Scientific Assistant

Peter M. Cross, B.Sc. (U. of Vic.), Coordinator, Cooperative Education Program

John Goudy, C.D. and Bar, B.A. (U. of Vic.), Administrative Officer

Russell M. Robb, B.Sc. (Calgary), Senior Scientific Assistant

Donald E. Stenton, B.Sc. (Brit. Col.-Vic. Coll.), Senior Laboratory Instructor

Alexander Y. Wong, B.Sc. (U. of Vic.), Senior Laboratory Instructor

Nikiforos Zapantis, B.Sc. (Brit. Col.), Senior Scientific Assistant and Senior Laboratory Instructor

**PHYSICS AND ASTRONOMY GRADUATE PROGRAMS**

For information on studies leading to the M.Sc. and Ph.D. degrees, see page 229; for Physics graduate courses, see page 123; for Astronomy graduate courses, see page 125.

The Department participates in the Cooperative Education Program in the Faculty of Graduate Studies and by individual arrangement Physics graduate students may participate in a Cooperative Education graduate program as described in the Faculty of Graduate Studies section of this Calendar (page 211).

Further information may be obtained from the Chairman of the Physics and Astronomy Department Graduate Committee.

**ENTRY INTO PHYSICS AND ASTRONOMY UNDERGRADUATE PROGRAMS**

Algebra 12 or Mathematics 12 is required for entry into the Physics and Astronomy undergraduate programs; Physics 11 and 12 are expected, although students lacking Physics 12 may enter the programs by registering in Physics 100. Students planning to take the Honours programs should normally also have completed Chemistry 11 or 12. Advanced placement is available for students with high standing in both Algebra 12 or Mathematics 12 and Physics 12.

## PHYSICS COOPERATIVE EDUCATION PROGRAM

The Cooperative Education Program in the Faculty of Arts and Science is described on page 31.

The Physics Cooperative Education Program is a year round program which includes, in addition to the normal Major or Honours academic program for the B.Sc., employment in jobs related to Physics or Astronomy in industry or government for at least four scheduled Work Terms interspersed between academic terms. This employment is related as closely as possible to the student's course of studies and individual interest.

To qualify for entry to the Physics Coop program, a student must have satisfied the university's English requirement, be enrolled full time, be proceeding to an Honours or Major degree in the Department of Physics and Astronomy, have at least a 4.50 average, and at least a second class in each physics or astronomy course taken. To remain in the program, a student must be enrolled full time and maintain at least a second class average (3.50). In addition, satisfactory performance in each Work Term is required. The first Work Term (following first year) is optional; the last four scheduled Work Terms are required. Students who choose to take the first Work Term will thus complete a total of five Work Terms. Successfully completed Work Terms will be recorded on the student's record and transcript. Work Term by Challenge, as outlined on p.28 of this Calendar, is permitted in the Physics Coop Program.

## PHYSICS UNDERGRADUATE PROGRAMS

For a B.Sc. degree in physics, students have a choice of five programs: General, Major, Combined Major in Physics and Astronomy, Honours Physics or Honours in Physics and Mathematics. For a B.A. degree, students may choose the General Program in Physics for one of their fields of concentration. The Astronomy Undergraduate programs are presented on page 124.

Physics 310A may not be used as a required elective in any Physics and Astronomy program; it may be taken for credit as a free elective.

### GENERAL AND MAJOR PROGRAMS

A General program in Physics must include a minimum of 9 units of Physics and Astronomy courses numbered 300 or higher.

A Major program in Physics must include the following courses: 120, 214, 215, 216 (or 316), 317 (or 217), 220, 325, 326, 413A, 413B; MATH 100, 101, 200, 201, 233A (or 325), 323B (or 326), 330A, 330B; CSC 110 or 112. Students who believe that they have the equivalent of CSC 110 or 112 may request the Physics Department to waive the CSC 110 or 112 requirement. In addition, 9 units (7½ units if 316 or 317 have been taken, 6 units if both 316 and 317 have been taken) of electives must be chosen from Physics and Astronomy courses numbered 300 or higher. At least 3 of these units must be in Physics courses.

Students who are not qualified to enter 120 directly must precede it with 110 or both 100 and 110 for any Physics or Astronomy program.

PHYS 413A and 413B may be taken in the third year. Fourth year students are invited to attend 460 (Seminar).

Students are strongly advised to take MATH 233A, and preferably also 233B, in addition to the Mathematics courses specified for these programs.

### COMBINED MAJOR IN PHYSICS AND ASTRONOMY

This program consists of a minimum of the following courses: PHYS 120, 214, 215, 216 (or 316), 220, 317 (or 217), 325, 326, 413A, 413B; ASTR 200A, 200B, 303, 304, 403, 404, and 400 or 402; MATH 100, 101, 200, 201, 330A, 330B, 323A (or 325), 323B (or 326); CSC 110 or 112. (Students who believe that they have the equivalent of CSC 110 or 112 may request the Physics Department to waive the CSC 110 or 112 requirement. In addition 9 units (7½ units if 316 or 317 have been taken, 6 units if both 316 and 317 have been taken) of electives must be chosen from Physics and Astronomy courses numbered 300 or higher.

A double major in Physics and Astronomy is not offered.

## HONOURS PHYSICS PROGRAMS

The courses required in an Honours Physics Program are 3 units of first year Chemistry, excluding 103; PHYS 120, 214, 215, 216 (or 316), 220, 317 (or 217), 321A, 321B, 325, 326, 410, 413A, 413B, 420, 421, 422, 423, 429A, 429B; 460; MATH 100, 101, 200, 201, 233A, 233B, 323A (or 325), 323B (or 326), 330A, 330B; CSC 110 or 112. Students who believe that they have the equivalent of CSC 110 or 112 may request the Physics and Astronomy Department to waive the CSC 110 or 112 requirement. In addition, 7½ units of electives must be chosen from Physics and As-

tronomy courses (or other approved courses) numbered 300 or higher (at least 3 units of which must be Physics courses) chosen in consultation with the Physics and Astronomy Department.

Admission to the third and fourth years of the Honours programs requires the permission of the Department. Students in the Honours programs will be expected to maintain at least second class standing. The class of Honours degree will be determined on the basis of the grade point average calculated using the best 30 units of upper level courses specified in that student's Honours program.

Completion of this program in four years normally requires 16½ units of credit in the third year and 18 units of credit in the fourth year. Honours students in the Cooperative Education program are normally required to obtain credit for at least 7½ units in each academic term, or 15 units in two successive academic terms which may be separated by a Work Term. The ninth academic term is not subject to this requirement.

## HONOURS PHYSICS AND MATHEMATICS PROGRAM

The courses required in an Honours Physics and Mathematics program are three units of first year Chemistry, excluding 103; PHYS 120, 214, 215, 216 (or 316), 220, 317 (or 217), 321A, 321B, 325, 326, 413A, 413B, 420, 421, 422, 423, 460; MATH 100, 101, 200, 201, 233A, 233C, 325, 326, 333A, 333C, 334, 336, 338, 445A, 445B; CSC 110 or 112; plus 1½ or 3 units of Physics and Astronomy courses numbered 300 or higher; plus 4½ units of Mathematics courses numbered 300 or higher. Students who believe that they have the equivalent of CSC 110 or 112 may request the Physics and Astronomy Department and the Mathematics Department to waive the CSC 110 or 112 requirement.

Physics electives are to be chosen in consultation with the Physics and Astronomy Department; Mathematics electives are to be chosen in consultation with the Mathematics Department.

Admission to the third and fourth years of the Honours Program in Physics and Mathematics requires the permission of both the Department of Physics and Astronomy and the Department of Mathematics. The class of the Honours degree of a student graduating in the Honours in Physics and Mathematics Program will be determined on the basis of the grade point average calculated using the best 30 units of upper level courses in that student's Honours program. The class designated will be First Class if this average is at least 6.50 and Second Class if this average is between 3.50 and 6.49.

Completion of this program in four years normally requires 18 units of credit in each of the third and fourth years.

## COURSE SEQUENCES IN PHYSICS PROGRAMS

Students will proceed according to the following table.

In Year I students will start their program with:

<sup>A</sup> Physics 120 & 220 or <sup>B</sup> Physics 110 & 120 or <sup>C</sup> Physics 100 & 110.

In each case the student will choose subsequent courses indicated by the same superscript.

Year	General and Major	Honours Physics	Honours in Physics and Mathematics
I.	<sup>A</sup> PHYS 120 & 220 <sup>B</sup> PHYS 110 & 120 <sup>C</sup> PHYS 100 & 110 MATH 100 & 101	<sup>A</sup> PHYS 120 & 220 <sup>B</sup> PHYS 110 & 120 <sup>C</sup> PHYS 100 & 110 MATH 100 & 101 CHEM 100 & 102 or 101 & 102 or 140 & 245 or 140 & 102 or 120	<sup>A</sup> PHYS 120 & 220 <sup>B</sup> PHYS 110 & 120 <sup>C</sup> PHYS 100 & 110 MATH 100 & 101 CHEM 100 & 102 or 101 & 102 or 140 & 245 or 140 & 102 or 120 MATH 233A & C*
	CSC 110 or 112	CSC 110 or 112	CSC 110 or 112
II.	<sup>A</sup> PHYS 317 <sup>B</sup> PHYS 220 <sup>C</sup> PHYS 120 & 220 PHYS 214 & 215 PHYS 216 MATH 200 & 201	<sup>A</sup> PHYS 317 <sup>B</sup> PHYS 220 <sup>C</sup> PHYS 120 & 220 PHYS 214 & 215 PHYS 216 MATH 200 & 201 MATH 233A & B	<sup>A</sup> PHYS 317 <sup>B</sup> PHYS 220 <sup>C</sup> PHYS 120 & 220 PHYS 214 & 215 PHYS 216 MATH 200 & 201 MATH 333A & C*
III.	<sup>B</sup> PHYS 317 <sup>C</sup> PHYS 317 PHYS 325 & 326 MATH 330A & B MATH 323A & B or 325 & 326	<sup>B</sup> PHYS 317 <sup>C</sup> PHYS 317 PHYS 325 & 326 PHYS 321A & B PHYS 413A & B MATH 330A & B MATH 323A & B or 325 & 326	PHYS 325 & 326* PHYS 321A & B PHYS 413A & B MATH 325 & 326 MATH 334 & 336 MATH 338 MATH elective

IV.	PHYS 413A & B	PHYS 410 & 420	<sup>B</sup> PHYS 317
	PHYS electives	PHYS 421	<sup>C</sup> PHYS 317
		PHYS 423 & 422	PHYS 421 * 422
		PHYS 429A & B	PHYS 423 & 420
		PHYS electives	PHYS 460
	PHYS 460	PHYS electives	MATH 445A & B
			MATH Electives

ASTR 200A and 200B are recommended electives in the second year.

\* MATH 233A and 233C may be deferred to the second year, in which case MATH 333A and 333C must be deferred to the fourth year. PHYS 317 may be deferred to the fourth year.

## PHYSICS UNDERGRADUATE COURSES

Students should consult the Chairman concerning courses offered in any particular year. The timetable also shows which courses are offered.

Where Consent of the Department is specified as a course prerequisite, this consent must be obtained from the Department Chairman or his nominee.

A student may obtain a total of only three units of credit from the set of courses 100, 101, 102, 103, 110, and 121, with the exception that a student with credit for 100 may subsequently obtain credit for 102 or 103 for a total of 4½ units.

A student who has credit for 125 may not subsequently take any of 100, 102, 103, or 110 for credit. A student who has credit for 110 before taking 125 may count either, but not both, of these courses for credit.

The normal prerequisites for second year Physics courses are MATH 100 and 101 and either PHYS 120 or 110 (120 may be taken concurrently with a first term second year Physics course). Students who have credit for MATH 100 and 101 and a grade of at least B in PHYS 102 may, with Departmental consent, be admitted to second year Physics courses for which they lack the normal physics prerequisite.

Attention is drawn to 103, a course intended for students who wish to increase their understanding of science and the physical world as part of their cultural development. It is not intended as a prerequisite for further courses in Physics.

Students should note the availability of 310A.

In many of the courses, especially those beyond first year, students will be given short lists of reference books that are helpful supplements to the prescribed texts, but that generally do not have to be bought by the students. Students may generally expect weekly problem assignments and a number of one hour tests during the term. In some courses, students may be assigned problems that may require the use of a programmable calculator or computer.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### PHYS 100 (1½) INTRODUCTORY PHYSICS

Kinematics and dynamics of motion in one and two dimensions, electrostatics, electric currents, magnetism. Not open to students with credit for 101 or 102 or 120 or 121 (*Prerequisites*: B.C. Secondary School Physics 11 or equivalent; MATH 100 which may be taken concurrently) F(3-3)

### PHYS 102 (3) GENERAL PHYSICS

Mechanics, heat, light, electricity, magnetism, and modern physics. (This course will meet the requirements in physics of students in the life sciences. Section I, with 4 lectures per week, is for students who have not obtained credit for B.C. Secondary School Physics 11 or equivalent. Students intending to take further courses in Physics are strongly recommended to take 100 or 110 rather than 102 and must take MATH 100 and 101 rather than 102.) (*Prerequisite*: B.C. Secondary School Physics 11, except for Section I, or equivalent; MATH 102, or 100 and 101, which may be taken concurrently) Y(3-3)

### PHYS 103 (3) A SURVEY OF PHYSICS

A description of physical principles with some selected applications to problems in our modern technological society. This course is intended for students who wish to increase their understanding of science and the physical world as part of their cultural or career development. NO(3-3)

### PHYS 110 (1½) ELEMENTARY PHYSICS

Review of concepts of force, work, energy. Periodic motion. Wave motion, sound, light. Reflection and refraction of light. Quantum properties of radiation; atomic and nuclear structure. Introduction to special relativity. (*Prerequisites*: B.C. Secondary School Physics 12 or equivalent or 100; MATH 100, which may be taken concurrently) FS(3-3)

### PHYS 120 (1½) MECHANICS: I

Kinematics, particle dynamics, curvilinear motion, momentum, angular momentum, energy. (Not open to students with credit for 121 or 211A) (*Prerequisites*: 110 or 101, or at least a B standing in B.C. Secondary School Physics 12, and Algebra 12 or Mathematics 12, or equivalent courses; MATH 100 or 101 either of which may be taken concurrently) FS(3-3)

### PHYS 125 (1½) FUNDAMENTALS OF PHYSICS

Simple harmonic motion; wave motion, sinusoidal waves, phase velocity, Huygens' Principle, resonance, reflection, refraction and interference; sound; the classic Doppler effect; ray and first order matrix optics, total internal reflection and dispersion; the electromagnetic spectrum; optical spectra and electronic structure; de Broglie waves; principles and applications of nuclear structure, nuclear reactions and ionizing radiation. (*Prerequisites*: 120; MATH 100, 133 or 233A, 101 which may be taken concurrently. Only under exceptional circumstances will the Chairman of the Department of Physics admit into this course a student who is not enrolled in the Faculty of Engineering.) S(3-3)

### PHYS 210 (1½) INTRODUCTORY GEOPHYSICS

Structure of the earth, plate tectonics and seafloor spreading. Principles of geomagnetism, geoelectricity, rock magnetism, gravity, seismology, geochronology; heat flow, and solar terrestrial relations. (*Prerequisites*: 120 or 121 or 211A, MATH 100 and 101) S(3-0)

### PHYS 214 (1½) AN INTRODUCTION TO LABORATORY ELECTRONICS

Standard laboratory electronic equipment, circuit properties such as impedance and resonance, semiconductor devices such as diodes and transistors, system functions such as feedback and switching. (*Prerequisites*: 102, or 101 or 121; or any two of 100, 110, 120, 125, 220; MATH 100 or 102. It is suggested that students take MATH 233A or 151 either of which may be taken concurrently) F(2-4)

### PHYS 215 (1½) WAVES AND INTRODUCTORY MODERN PHYSICS

Wave motion; an introduction to topics in modern physics. (Not open to students with credit in 212) (*Prerequisites*: 110 or 120, or 101 or 121; MATH 200 and 201 which may be taken concurrently, or 230 or 231) S(3-3)

### PHYS 216 (1½) INTRODUCTORY ELECTRICITY AND MAGNETISM

Electrostatics, magnetostatics, dielectrics, magnetic materials, steady currents, Faraday's Law of Induction. (*Prerequisites*: 110 or 120 or 121; MATH 200 which may be taken concurrently, or 230 or 231) S(3-3)

### PHYS 217 (1½) INTRODUCTORY THERMODYNAMICS

Introduction to equilibrium thermodynamics, with additional treatment of calorimetry and heat transfer. (Not open to students with credit in 213) (*Prerequisites*: 110 or 120 or 121; MATH 200 and 201 which may be taken concurrently, or 230 or 231) NO(3-0)

### PHYS 220 (1½) MECHANICS: II

Relativistic kinematics and dynamics. Noninertial systems, central force motion, harmonic oscillator, elementary rigid body dynamics. (Not open to students with credit for 121 or 211B) (*Prerequisites*: 120 or 211A; MATH 101 which may be taken concurrently) FS(3-3)

### PHYS 290 (1-3) DIRECTED STUDIES

This course is intended primarily to aid students transferring from other institutions to fit into the physics programs. Students must obtain the consent of the Department before registering.

### PHYS 310A (1½) PHYSICS AND TECHNOLOGY OF ENERGY

An introduction to the physics and technology of producing, distributing and using energy from various sources. Present and possible future energy systems are examined with respect to efficiency, hazards and impact on world energy reserves. The course is intended for students in the humanities and social sciences, as well as the natural sciences, and may be taken for credit by students in Physics or Astronomy programs as an elective outside these programs. (*Prerequisites*: 15 units of university level credit, including 3 units of Physics, or permission of the Department) F(3-0)

**PHYS 316 (1½) ELECTRICITY AND MAGNETISM: I**

Stationary electric and magnetic fields, scalar and vector potentials, dielectrics and magnetic materials, steady currents, electromagnetic induction. (*Prerequisites:* 220 or 121, or 211A and 211B; MATH 200 and 201, or 230 or 231) (Not offered after 1987) NO(3-3)

**PHYS 317 (1½) THERMODYNAMICS**

The theory and application of thermodynamics. (*Prerequisites:* 110 or 120 or 121; MATH 200 which may be taken concurrently, or 230 or 231) FK(3-0)

**PHYS 321A (1½) CLASSICAL MECHANICS: I**

Topics covered include oscillatory motion, motion under a central force, dynamics of a system of particles, gravitational potential theory, special relativity. (*Prerequisites:* 220 or 121, or 211A and 211B; MATH 330A or 303, and 323A or 325; the mathematics courses may be taken concurrently) F(3-0)

**PHYS 321B (1½) CLASSICAL MECHANICS: II**

Rigid body dynamics, an introduction to analytical mechanics including Lagrange's and Hamilton's equations, theory of small oscillations. (*Prerequisites:* 321A; MATH 303 or 330B, 323B or 326; the mathematics courses may be taken concurrently) S(3-0)

**PHYS 325 (1½) OPTICS**

Reflection and refraction at plane and spherical surfaces, thin lenses, lens aberrations, optical instruments, interference, diffraction, polarization. (*Prerequisites:* 220 or 121, or 211A and 211B; MATH 200 and 201, or 230 or 231) SK(3-3)

**PHYS 326 (1½) ELECTRICITY AND MAGNETISM: II**

Transients in RCL circuits, transmission lines, displacement current, Maxwell's equations, plane electromagnetic waves. (*Prerequisites:* 214, and 216 or 316; MATH 330B, and 323B or 326; all the mathematics courses may be taken concurrently) F(3-3)

**PHYS 410 (1½) TOPICS IN MATHEMATICAL PHYSICS: I**

Elementary topics in functions of a complex variable applied to physical problems. (*Prerequisites:* 220 or 121, or 211A and 211B; MATH 303 or 330B, and 323B or 326) F(3-0)

**PHYS 411 (1½) TIME SERIES ANALYSIS**

Continuous and discrete Fourier transforms, convolution and correlation, autocorrelation, spectral density estimation, deconvolution, linear filtering, frequency domain and two dimensional filtering. Digital data processing and computer analysis are stressed. (*Prerequisites:* 214; MATH 330B, and 323B or 326) F(3-0)

**PHYS 413A (1½) MODERN PHYSICS: I — INTRODUCTION TO QUANTUM PHYSICS**

An introduction to quantum mechanics, the hydrogen atom, optical spectra and electronic structures, x-rays, lasers. (*Prerequisites:* Either (i) 215 and either 216 or 316; the latter may be taken concurrently; or (ii) 212 and either 213 or 313; MATH 330A, and 323A or 325; the mathematics courses may be taken concurrently) F(3-3)

**PHYS 413B (1½) MODERN PHYSICS: II**

Selected applications of quantum mechanics to molecular physics, statistical mechanics and solid state physics, nuclear physics, fundamental particles. (*Prerequisites:* 413A; MATH 330B, and 323B or 326; the mathematics courses may be taken concurrently) S(3-3)

**PHYS 415 (1½) GENERAL RELATIVITY AND COSMOLOGY**

Introduction to Einstein's theory of gravitation and its experimental verification. Applications within the realms of astrophysics and cosmology. (*Prerequisites:* 321B; MATH 330B; or consent of the Department) F(3-0)

**PHYS 420 (1½) TOPICS IN MATHEMATICAL PHYSICS: II**

Tensor calculus with applications. Integral transforms with application to boundary value problems, generalized functions and Green's functions, and other topics. (*Prerequisites:* 410 or equivalent; MATH 233A, and 233B or 233C) (Primarily for Honours students; others must seek Departmental advice before registering in this course.) S(3-0)

**PHYS 421 (1½) STATISTICAL MECHANICS**

Boltzmann, Bose-Einstein and Fermi-Dirac statistics. (*Prerequisites:* 217 or 317, or 213 or 313; 321B and 413A; MATH 330B, and 323B or 326) (Primarily for Honours students; others must seek Departmental advice before registering in this course.) S(3-0)

**PHYS 422 (1½) ELECTROMAGNETIC THEORY**

Potential theory, Maxwell's equations, electromagnetic waves. (*Prerequisites:* 326 or 322; MATH 330B, and 323B or 326) (Primarily for Honours students; others must seek Departmental advice before registering in this course.) SK(3-0)

**PHYS 423 (1½) QUANTUM MECHANICS**

Operator postulates, barrier penetration, harmonic oscillator, one-electron atom, angular momentum operators, spin. (*Prerequisites:* 321B and 413B; MATH 330A, and 323A or 325; the mathematics courses may be taken concurrently) (Primarily for Honours students; others must seek Departmental advice before registering in this course.) F(3-0)

**PHYS 424 (1½) ATOMIC, NUCLEAR AND PARTICLE PHYSICS**

Topics in nuclear, atomic, and particle physics. (*Prerequisite:* 423) S(3-0)

**PHYS 425 (1½) ELECTRONICS**

Electronic circuit theory with applications. (*Prerequisites:* 214, and 216 or 316 or 322; MATH 330B) F(3-0)

**PHYS 426 (1½) FLUID MECHANICS**

Introduction to basic theory of flow, kinematics of flow, Navier-Stokes equations, boundary layers, turbulent flow; introduction to compressible flow. (*Prerequisites:* 220 or 121, or 211A and 211B; 217 or 317 or 213 or 313; MATH 330B, and 323B or 326; PHYS 217 and the mathematics courses may be taken concurrently) S(3-0)

**PHYS 427 (1½) GEOPHYSICS**

Physics of the earth, including atmospheric studies and extraterrestrial effects. Structure and composition of the earth, elementary seismology, and geomagnetism. (*Prerequisites:* 326 or 322 which may be taken concurrently; MATH 330B, and 323B or 326; the mathematics courses may be taken concurrently) S(3-0)

**PHYS 428 (1½) INTRODUCTORY SOLID STATE PHYSICS**

An account of the central aspects of the physics of solids including crystal structure and symmetry; thermal, electrical, magnetic, elastic, and optical properties of solids. (*Prerequisites:* 326 or 322; 413A; MATH 330B, and 323B or 326) S(3-0)

**PHYS 429A (1½) SENIOR LABORATORY AND THEORY OF MEASUREMENT: I**

Advanced experiments. Instruction on experimental techniques and theory of measurement. (*Prerequisite:* 413B) FS(0-6)

**PHYS 429B (1½) SENIOR LABORATORY AND THEORY OF MEASUREMENT: II**

Advanced experiments including student projects. Instruction on experimental techniques and theory of measurement. (*Prerequisites:* 429A, 422, 423; and 421 which may be taken concurrently) (Primarily for Honours students; others must seek Departmental advice before registering in this course.) S(0-6)

**PHYS 460 (0) PHYSICS SEMINAR**

Talks by students, faculty and outside speakers. (Grading: COM, N or F) Y(2-0)

**PHYS 490 (1-3) DIRECTED STUDIES**

Students must obtain the consent of the Department before registering.

**PHYSICS GRADUATE COURSES**

Students should consult the Department concerning the courses offered in any particular year.

**PHYS 500 (3) QUANTUM MECHANICS****PHYS 501 (3) NUCLEAR PHYSICS****PHYS 502 (3) ELECTROMAGNETIC THEORY****PHYS 503 (3) THEORY OF RELATIVITY****PHYS 504 (3) ATOMIC AND MOLECULAR SPECTROSCOPY****PHYS 505 (3) ADVANCED CLASSICAL MECHANICS****PHYS 506A (1½) PARTICLE PHYSICS: I****PHYS 506B (1½) PARTICLE PHYSICS: II****PHYS 510 (3) ADVANCED METHODS IN MATHEMATICAL PHYSICS**

**PHYS 511 (3) APPLIED TOPICS IN NUCLEAR PHYSICS****PHYS 512 (3) UPPER ATMOSPHERE PHYSICS****PHYS 514 (3) GAS DYNAMICS****PHYS 515 (3) GEOMAGNETISM AND SOLAR-TERRESTRIAL RELATIONSHIPS****PHYS 516A (1½) ACOUSTICS: I****PHYS 516B (1½) ACOUSTICS: II****PHYS 517 (3) NUCLEAR MAGNETIC RESONANCE****PHYS 518 (3) PLASMA PHYSICS****PHYS 519A (1½) SELECTED TOPICS IN GEOPHYSICS: I**

(May be taken more than once for credit)

**PHYS 519B (1½) SELECTED TOPICS IN GEOPHYSICS: II**

(May be taken more than once for credit)

**PHYS 520A (1½) SELECTED TOPICS IN GEOPHYSICAL FLUID DYNAMICS: I****PHYS 520B (1½) SELECTED TOPICS IN GEOPHYSICAL FLUID DYNAMICS: II****PHYS 521 (3) INTERMEDIATE ENERGY PHYSICS****PHYS 560 (0) SEMINAR** (Grading: INP, COM, N or F)**PHYS 580 (1-3) DIRECTED STUDIES** (May be taken more than once for credit)**PHYS 599 (credit to be determined but normally in this Department 6 units) M.SC. THESIS** (Grading: INP, COM, N or F)**PHYS 600 (3) ADVANCED QUANTUM MECHANICS****PHYS 699 (credit to be determined) PH.D. DISSERTATION** (Grading: INP, COM, N or F)

The thesis or dissertation requirement for advanced degrees (599 or 699) applies to all students in the Department, both Physics and Astronomy.

**ASTRONOMY UNDERGRADUATE PROGRAMS**

For a BSc degree, students have a choice of three programs: Major, Honours and a combined Major in Physics and Astronomy (See p. 121). The first two years of the Major and Honours Astronomy programs are the same as the corresponding Physics programs, with the addition of ASTR 200A and 200B. It is recommended that students planning a Major in Astronomy take 3 units of first year Chemistry, excluding 103. In the third and fourth years Astronomy students take the following courses:

<i>Major</i>	<i>Honours</i>
ASTR 303 & 304	ASTR 303 & 304
ASTR 400 or 402	ASTR 400 or 402
ASTR 403 & 404	ASTR 403 & 404
PHYS 317	ASTR 429A & B
PHYS 326 & 325	ASTR 460
PHYS 413A & B	PHYS 317
MATH 330A & B	PHYS 321A & B
MATH 323A & B, or 325 & 326	PHYS 326 & 325
	PHYS 410 & 420
	PHYS 413A & B
	PHYS 422 or 423
	PHYS electives
	MATH 330A & B
	MATH 323A & B or 325 & 326

Students wishing to enter the third year of the Major or Honours program without having completed 200A and 200B will normally be required to take 200A and 200B in their third year. 303 and 304 should then be deferred to the fourth year. Students electing to take 400 or 402 in the third year may defer 304 to the fourth year. Students who have not obtained credit for PHYS 317 (or 217) in second year must take PHYS 317 in their fourth year.

Third and fourth year Major students are invited to attend ASTR 460, Astronomy Seminar.

**HONOURS PROGRAM**

Admission to the third and fourth years of the Honours program requires the permission of the Department. Students in the Honours program will be expected to maintain at least second class standing. The class of Honours degree will be determined on the basis of the grade point average calculated using the best 30 units of upper level courses

specified in that student's Honours program.

The Honours program normally consists of 18 units in each of the third and fourth years. This may include 200A and 200B in the third year if credit has not been obtained for these courses in the second year. The electives, chosen in consultation with the Department, are normally selected from PHYS 411, 415, 421, 422, 423, 424, 425, 426, 427, 428.

**ASTRONOMY UNDERGRADUATE COURSES**

Attention is drawn to 120, a course intended for students who wish to increase their understanding of astronomy and the physical world as part of their cultural development. It is not intended as a prerequisite for further courses in Astronomy.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**ASTR 120 (3) ELEMENTARY ASTRONOMY**

This course is primarily for students not majoring in Astronomy. It will present Astronomy as a representative science in its ancient and modern contexts. Topics will include: the earth, the moon, the planets, stars, stellar systems, galaxies, the universe, cosmology, space flight, and extraterrestrial life. Practical and observational work will be included. Laboratories on alternate weeks. (Senior science and mathematics students who want a single astronomy course should take 200A and 200B rather than 120.)

YK(3-3)

**ASTR 200A (1½) GENERAL ASTRONOMY: I**

Astronomical coordinate systems, time, Kepler's laws and planetary orbits, the earth-moon system, the planets and minor planets, comets, meteors and meteorites, interplanetary particles, cosmogony, the sun. (Prerequisites: PHYS 120 which may be taken concurrently, or 101 or 121; MATH 100 and 101)

F(3-3)

**ASTR 200B (1½) GENERAL ASTRONOMY: II**

Stellar distances and magnitudes, binary stars, spectral classification, stellar evolution, variable stars, stellar motions, star clusters, interstellar medium, structure and rotation of the Galaxy, external galaxies and cosmology. (Prerequisites: PHYS 120, or 101 or 121; MATH 100 and 101)

S(3-3)

**ASTR 303 (1½) INTRODUCTORY EXTRAGALACTIC ASTRONOMY**

The distance scale, properties of galaxies, observational cosmology. (Prerequisites: 200A and 200B; PHYS 215; PHYS 216 or 316 which may be taken concurrently; MATH 303 or 330A, and 323A or 325; the mathematics courses may be taken concurrently. PHYS 217 or 317 is desirable.)

F(3-0)

**ASTR 304 (1½) THE SOLAR SYSTEM**

Astronomy of the sun, the planets and satellites, meteors and comets, including recent results from space exploration. (Prerequisites: 200A and 200B; PHYS 215; PHYS 216 or 316; PHYS 217 or 317 which may be taken concurrently; MATH 303 or 330B, and 323B or 326; the mathematics course may be taken concurrently)

S(3-0)

**ASTR 400 (1½) RADIO ASTRONOMY**

The detection of cosmic radio waves; mechanisms for production of radio noise; the sources of radio waves; the contribution of radio astronomy to our knowledge of the universe. (Prerequisites: 200A and 200B or the consent of the Department; PHYS 326 or 322, 413B which may be taken concurrently; MATH 303 or 330B, and 323B or 326)

S(3-0)

**ASTR 402 (1½) DYNAMICAL AND GALACTIC ASTRONOMY**

The positions and motions of the stars, the two and three body problems, precession, perturbation techniques, galactic rotation, the spiral structure of our Galaxy. (Prerequisites: 200A and 200B or the consent of the Department; PHYS 321A and 321B which may be taken concurrently; MATH 303 or 330B, and 323B or 326; the mathematics courses may be taken concurrently)

NO(3-0)

**ASTR 403 (1½) INTRODUCTION TO ASTROPHYSICS: I**

The observational data of astrophysics; stellar atmosphere and the production of stellar spectra. (Prerequisites: 200A and 200B or the consent of the Department, PHYS 213, or 313, or 217 and 325, or 317 and 325; PHYS 413A which may be taken concurrently; MATH 303 or 330B, and 323B or 326)

F(3-0)

**ASTR 404 (1½) INTRODUCTION TO ASTROPHYSICS: II**

The structure and evolution of the stars; interstellar matter; high energy astrophysics. (Prerequisites: 403 or consent of the Department; PHYS 413B which may be taken concurrently)

S(3-0)

**ASTR 429A (1½) OBSERVATIONAL ASTRONOMY: I**  
Observational and practical work, directed reading. (Normally open to Honours students only. Others by consent of the Department)  
(No text required) F(0-6)

**ASTR 429B (1½) OBSERVATIONAL ASTRONOMY: II**  
Observational and practical work, directed reading. (Normally open to Honours students only. Others by consent of the Department)  
(No text required) S(0-6)

**ASTR 460 (0) ASTRONOMY SEMINAR**  
Talks by students, faculty and outside speakers. (Grading: COM, N or F)  
Y(2-0)

**ASTR 490 (1-3) DIRECTED STUDIES**  
(Students must obtain the consent of the Department before registering.)

**ASTRONOMY GRADUATE COURSES**

Students should consult the Department concerning the courses of-

ferred in any particular year.  
500-505 offered as A or B.

- ASTR 500 (1½ or 3) STELLAR ATMOSPHERES**
- ASTR 501 (1½ or 3) STELLAR STRUCTURE AND EVOLUTION**
- ASTR 502 (1½ or 3) BINARY AND VARIABLE STARS**
- ASTR 503 (1½ or 3) THE INTERSTELLAR MEDIUM**
- ASTR 504 (1½ or 3) GALACTIC STRUCTURE**
- ASTR 505 (1½ or 3) GALAXIES**
- ASTR 511 (1½ or 3) ADVANCED TOPICS IN ASTRONOMY**  
(May be taken more than once for credit)
- ASTR 560 (0) SEMINAR** (Grading: INP, COM, N or F)
- ASTR 580 (1-3) DIRECTED STUDIES**  
(May be taken more than once for credit)

The thesis requirement for advanced degrees (PHYS 599 or 699) applies to all students in the Department, both Physics and Astronomy.

**DEPARTMENT OF POLITICAL SCIENCE**

- Howard L. Biddulph, B.S. (Brigham Young), M.A., Ph.D. (Indiana), Associate Professor and Chairman of the Department
- Anthony H. Birch, B.Sc. (Econ.), Ph.D. (London), Professor
- Edgar S. Efrat, B.A. (Reed Coll.), M.A., Ph.D. (Texas), Associate Professor
- Warren Magnusson, B.A. (Manitoba), B.Phil., D.Phil. (Oxon.), Associate Professor
- J. Terence Morley, B.A. (Dalhousie), Ph.D. (Queen's), Associate Professor
- Richard J. Powers, B.A. (New Mexico), M.A., Ph.D. (Claremont), Associate Professor
- Robert B.J. Walker, B.A. (Wales), M.A., Ph.D. (Queen's), Associate Professor
- Colin Bennett, B.Sc., M.Sc. (Wales), Ph.D. (Illinois), Assistant Professor
- Patrick G. Nixon, B.A. (Carleton), B.Ed., M.A., Ph.D. (W. Ont.), Assistant Professor
- Norman J. Ruff, B.Sc. (Econ.) (Southampton), M.A. (McMaster), Ph.D. (McGill), Assistant Professor
- R. Jeremy Wilson, B.A., M.A. (Alta.), Ph.D. (Brit. Col.), Assistant Professor
- Ernest M. Keenes, B.A. (Manit.), M.A. (Car.), Visiting Lecturer (1987-88)
- Bruce W. Milne, B.A., M.A. (U. of Vic.), Visiting Lecturer (1987-88)

**Honours** — Students will be admitted to the Honours Program in Political Science, at the discretion of the Department, at the beginning of the third year. Students must have a grade point average of at least 5.00 in 6 units of Political Science courses numbered at the 100 or 200 level. Students contemplating Honours are advised to select 200 level courses from 202, 210, 230, 240. To continue in the program in the fourth year, students must secure a grade point average of at least 6.00 in Political Science courses taken during the third year, and maintain an overall grade point average of 5.00.

The Honours program requires completion of 21 units of Political Science courses numbered at the 300 and 400 level with a minimum of 3 units from each of at least four of the Groups I-VI. The courses must include 338, 339, and 499, and at least 3 units from 300A, 300B, 300C. Honours students are required to consult a faculty member in the Department when planning their programs for the third and fourth years.

Graduation with First Class Honours requires:

- (1) a graduating average of 6.50 or higher
- (2) an average of 6.50 or higher in the best 21 units of Political Science at the 300 and 400 levels, and
- (3) at least a grade of A- in 499

Upon completing the program, any student who meets requirement (1), but not (2) or (3), will have the option of graduating either with a First Class Major degree or (if the Honours work meets the requirements) with a Second Class Honours degree. To secure a Second Class Honours degree a student must have (1) a graduating average of 3.50 or higher, (2) an average of 4.50 or higher in the best 21 units of Political Science at the 300 and 400 levels, and (3) at least a grade of B in 499.

**GRADUATE PROGRAMS**

For information on studies leading to the M.A. degree, see page 230; for graduate courses, see page 128.

**GENERAL, MAJOR AND HONOURS PROGRAMS**

The Department of Political Science offers General, Major and Honours programs leading to the B.A. Third and Fourth Year students not enrolled in the General, Major or Honours programs may take as a free elective any third or fourth year course in Political Science for which no prerequisite or other restriction is specified.

Students who may want to do graduate work are strongly advised to take POLI 339 and also some course work in statistical methods.

Information about current course offerings may be obtained from the Departmental Office in the Cornett Building.

**General** — A concentration in Political Science under the general program requires 6 units of Political Science courses numbered at the 100 or 200 level and 9 units at the 300 or 400 level.

**Major** — The Major program is open to students who have completed 6 units of Political Science courses numbered at the 100 or 200 level. Students contemplating a Major are advised to select 200 level courses from 202, 210, 230, 240. Major students are required to complete 15 units of Political Science courses at the 300 or 400 level, including at least 3 units from 300A, 300B, 300C. They must take a minimum of 3 units from each of at least three of the Groups I-VI. Students intending to major in Political Science may wish to consult a faculty member in the Department when planning their programs for the third and fourth years.

**DEPARTMENT OF POLITICAL SCIENCE — UNDERGRADUATE COURSE INDEX**

**First and Second Year**

100 (3)  
202 (1½) 210 (1½) 220 (1½) 230 (1½) 240 (1½) 250 (1½)

**Third and Fourth Year**

I	II	III
<i>Political Theory</i>	<i>Comparative Government</i>	<i>Political Analysis</i>
300A (1½)	311 (3)	330 (1½)
300B (1½)	312 (3)	332 (3)
300C (1½)	313 (3)	338 (1½)
302 (1½)	314 (3)	339 (1½)
404 (3)	315 (1½)	430 (1½)
405 (3)	316 (1½)	431 (1½)
406 (3)	317 (3)	433 (1½)
	417 (1½)	
	418 (1½)	

IV	V	VI	VII
<i>International Relations</i>	<i>Public Administration and Policy Analysis</i>	<i>Canadian Government and Politics</i>	<i>Honours</i>
340 (3)	350 (3)	320 (3)	490 (1½ or 3)
342 (1½)	351 (1½)	360 (1½)	499 (3)
343 (1½)	352 (1½)	361 (1½)	
443 (1½)	353 (1½)	362 (1½)	
445 (3)	425 (1½)	465 (3)	
446 (1½)	457 (1½)	470 (3)	

### PROGRAM STRUCTURE

6 units of courses numbered at the 100 or 200 level

General	Major	Honours
9 units of courses numbered at the 300 or 400 level.	15 units at the 300 or 400 level including at least 3 units from 300A, 300B, 300C. These must include 3 units in each of at least 3 of the Groups I-VI. 490 may not be applied to this distribution requirement without approval of the Department.	338, 339, 499 and 3 units from 300A, 300B, 300C and additional units to a total of 21 at the 300 or 400 level. These must include 3 units in each of at least 4 of the Groups I-VI. 490 may not be applied to this distribution requirement without approval of the Department.

### UNDERGRADUATE COURSES

The department will make every effort to ensure that the courses marked with an asterisk are offered each year. For confirmation of this, together with details of other courses to be offered, the terms in which classes will be given, and the names of course instructors, prospective students should consult the *Political Science Guidebook*. This *Guidebook* will be published in May and copies will be available at the Department of Political Science office, at Records Services, and at the Arts and Science Advising Centre.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### \* POLI 100 (3) CANADIAN GOVERNMENT AND POLITICS

An introduction to Political Science through an examination of the politics and institutions of Canadian Government. The course will include analysis of the social and economic context of Canadian politics and will cover such topics as parties, voting behaviour, nationalism and regionalism, federalism, parliament, the bureaucracy, the courts and the policy processes. (Credit cannot be obtained for both 100 and 470) Y(3-0)

#### \*POLI 202 (1½) AN INTRODUCTION TO POLITICAL THEORY

This course will focus on one or more topics in contemporary political theory such as the nature of democracy, the role of ideology, or the functions of the state. Different analyses will be compared, and students will be introduced to various models and techniques of theoretical inquiry. F(3-0)

#### \*POLI 210 (1½) COMPARATIVE POLITICS

An introduction to the comparative study of politics and the basic structures and processes of modern political systems, including an examination of selected foreign governments. FS(3-0)

#### POLI 220 (1½) LAW AND POLITICS

An introduction to the role of law in the political process, including a description of the judicial structure in Canada, and the processes of the judiciary in the English speaking world as compared with the European tradition. S(3-0)

#### POLI 230 (1½) POLITICAL ANALYSIS

An introduction to contemporary political analysis. Several different approaches to the study of politics will be considered, such as institutional analysis, public choice theory and neoutilitarianism, marxist and neomarxist thought, biological, psychological and cultural perspectives and theories of political development. NO(3-0)

#### \*POLI 240 (1½) INTERNATIONAL POLITICS

A general introduction to the study of international politics. Attention

will be directed to the foundation, development and current structure of the states system. Specific important events in the relationships among states will serve to illuminate the causes, goals, means and subsequent consequences of major foreign policy decisions. F(3-0)

#### POLI 250 (1½) PUBLIC POLICY FORMATION IN CANADA

An introductory examination of the impact of cultural, economic and political factors in the determination of Canadian public policies. This course will include some case studies which compare the policy formation process in Canada with that of other countries. NO(3-0)

### GROUP I — POLITICAL THEORY

#### POLI 300A (formerly 301) (1½) ANCIENT AND MEDIEVAL POLITICAL THOUGHT

A survey of the main themes and assumptions of political theory in ancient Greece and medieval Europe, including study of Plato's *Republic* and Aristotle's *Politics*. (Not open to students with credit for 300 prior to 1982-83) F(3-0)

#### \*POLI 300B (formerly half of 300) (1½) EARLY MODERN POLITICAL THOUGHT

An examination of basic texts and persistent themes in Western political thought from the Renaissance to the Enlightenment, including study of texts by such key thinkers as Machiavelli, Hobbes, Locke, Hume, and Kant. (Prerequisite: Third or fourth year standing or permission of the Department) FS(3-0)

#### \*POLI 300C (formerly half of 300) (1½) POST ENLIGHTENMENT POLITICAL THOUGHT

An examination of basic texts and persistent themes in Western political thought from the Enlightenment to the late 19th century, including study of texts by such key thinkers as Rousseau, Hegel, Marx and J.S. Mill. (Prerequisite: 300B) S(3-0)

#### POLI 302 (1½) CONTEMPORARY THEMES IN POLITICAL THOUGHT

A general survey of the major themes in contemporary political thought. Among other things, it will examine suggestions that much traditional political thought has been rendered obsolete by other forms of social, economic and philosophical inquiry. The counter-assertion that the conventions of the great tradition remain vigorous and relevant to contemporary political life will also be considered. NO(3-0)

#### POLI 404 (3) THEORIES OF THE MODERN STATE

An examination of 19th and 20th century theories of the state, with particular attention to liberal democratic thought and to the criticisms of it developed by Marxists, anarchists, and traditionalist conservatives. (Prerequisite: 300B and either 300A or 300C or permission of the instructor) Y(3-0)

#### POLI 405 (3) IDEOLOGY AND CONTEMPORARY POLITICAL THOUGHT

An examination of some of the major discussions of ideology in 19th and 20th century political thought. Particular attention will be paid to the analytical difficulties embodied in the concept of ideology, to the historical-philosophical context of current debates about ideology in advanced industrial societies, and to recent literature on ideology arising from the confrontation of major cultural traditions. (Prerequisite: 300B and either 300A or 300C or permission of the instructor) NO(3-0)

#### POLI 406 (3) MARXIST POLITICAL THOUGHT

This course provides an analysis of the contributions to political thought of Marx, Engels, and various Marxian thinkers in the 19th and 20th centuries. Marxism is examined as a scientific theory and method, as a philosophy of history, as a mode of social criticism, and as an ideology of political change in its main varieties. (Prerequisite: 300C or permission of the instructor) NO(3-0)

### GROUP II — COMPARATIVE GOVERNMENT

#### POLI 311 (3) WESTERN EUROPEAN GOVERNMENTS AND POLITICS

An analysis of governmental institutions, parties and pressure groups, political behaviour, and political conflicts in France, Italy, the Federal Republic of Germany, and one of the smaller European nations. (3-0)

**POLI 312 (3) COMMUNIST POLITICAL SYSTEMS**

An analysis of governmental processes in Communist ruled political systems, with emphasis on Eastern Europe, the U.S.S.R., and mainland China; comparative analysis of communist revolutions, parties and groups, leadership elites, policy making and administration, political culture and socialization; and the development of the Communist international system. Y(3-0)

**\*POLI 313 (3) AMERICAN GOVERNMENT AND POLITICS**

An analysis of the politics and institutions of government in the United States; areas of study will include such topics as the presidential system and executive-legislative relations, judicial behaviour, political parties and electoral behaviour, and the federal framework. Y(3-0)

**POLI 314 (3) BRITISH GOVERNMENT AND POLITICS**

An analysis of political institutions and behaviour in the United Kingdom. Areas of study will include the main institutions of government, political parties and ideologies, elections and pressure groups, the public service, the policy making process in selected fields, and the relations between England, Scotland, Wales, and Northern Ireland. (Not open to students who have credit in 316) NO(3-0)

**POLI 315 (1½) GOVERNMENT AND POLITICS IN THE U.S.S.R.**

An intensive analysis of the governmental process in the Soviet Union; examination of the political development of the U.S.S.R., the political culture and socialization process, interest groups and policy making process, administration and the judicial system. F(3-0)

**POLI 316 (1½) PARLIAMENTARY DEMOCRACY IN BRITAIN**

An analysis of the character and operation of parliamentary democracy in the United Kingdom; areas of study include Parliament, the cabinet system, parties, pressure groups, electoral behaviour, and civil liberties. (Not open to students who have credit in 310 or 314) S(3-0)

**\*POLI 317 (3) POLITICS OF DEVELOPING AREAS**

An examination of the political development and political processes in developing countries, with emphasis on Asia and/or Latin America. Y(3-0)

**POLI 417 (1½) GOVERNMENT AND POLITICS IN SUB-SAHARAN AFRICA**

An introduction to the politics of African states south of the Sahara; particular attention is devoted to political ideologies, institutions and transnational problems. S(3-0)

**POLI 418 (formerly 331) (1½) EXECUTIVE AND LEGISLATIVE POLITICS**

A consideration of the functions, roles, behaviour and organization of representative assemblies in Canada, Britain and the United States. Executive-legislative relationships will be emphasized. NO(3-0)

**GROUP III — POLITICAL ANALYSIS****POLI 330 (1½) PUBLIC OPINION AND MASS POLITICAL BEHAVIOUR**

An examination of the factors shaping public opinion and mass political behaviour. Topics will include political participation and apathy, the formation of political attitudes and ideology, discontent and protest, social structure and political cleavages, political socialization, and voting. F(3-0)

**POLI 332 (3) URBAN AND LOCAL POLITICS**

A comparative study of politics and government at the local level in Canada and abroad, with special attention to the politics of urban planning, community development, and collective consumption. (Not open to students with credit in 450) Y(3-0)

**\*POLI 338 (1½) POLITICAL CONCEPTS**

An analysis of some of the key concepts in contemporary political thought, such as "power", "authority", and "justice". This is a seminar course which Honours students are required to take during their third year. The course is recommended for other students majoring in Political Science but not recommended as a general elective. F(3-0)

**POLI 339 (1½) THE EMPIRICAL ANALYSIS OF POLITICS**

An introduction to the systematic analysis of political phenomena. Topics deal with the methodological underpinnings of political science and include: historical and institutional analyses, measurement, sampling, research design, and statistical testing. Illustrations will be drawn

from various studies of political behaviour and policy formation. (Required for Honours students, preferably in their third year; recommended for students considering graduate studies in Political Science or Public Administration.) (Not open to students who have credit in 337) S(3-0)

**POLI 430 (1½) MASS MEDIA AND POLITICS**

An examination of mass communication and the dissemination of political information; the course will cover both historical and contemporary questions. NO(3-0)

**POLI 431 (formerly 459) (1½, formerly 3) THE STATE IN SOCIETY**

An examination of the role and major functions of the state, with particular attention to social and economic policies in advanced industrial countries. NO(3-0)

**POLI 433 (formerly 466) (1½ or 3) ISSUES IN POLITICS**

An analysis of one or more selected political issues, such as aboriginal rights, feminism, resource ownership, political violence, or nationalist movements. (May be taken more than once on different topics up to a maximum of 3 units with permission of the Chairman of the Department) FS(3-0)

**GROUP IV — INTERNATIONAL RELATIONS****\*POLI 340 (3) INTERNATIONAL STUDIES**

A seminar in the theory and practice of relations between modern nation-states; an examination of the traditional methods of studying international politics will be followed by an introduction to normative and empirical theory and contemporary methodologies. Y(3-0)

**POLI 342 (1½) INTERNATIONAL LAW**

A seminar in the principles and practices of international law; focus will be both historical and contemporary, and the emphasis will be on the political implications of international law. NO(3-0)

**POLI 343 (1½) INTERNATIONAL ORGANIZATION**

A seminar in the theory and development of international organizations focusing on the League of Nations, the United Nations, and institutions such as the European Economic Community and other regional organizations. NO(3-0)

**POLI 443 (1½) COMMUNIST INTERNATIONAL RELATIONS**

An examination of the theory and practice of relations among Communist Party states, analyzing the domestic and external sources of behaviour, the comparative conduct of foreign policy, the integration and disintegration of the "world socialist system". NO(3-0)

**\*POLI 445 (3) COMPARATIVE FOREIGN POLICY**

A seminar in the formulation, execution and evaluation of foreign policy; the development of a theoretical model for foreign policy analysis will be followed by an application of the model to the current foreign policies pursued by the major nation-states. Each student will be responsible for systematically examining the foreign policy of one nation-state. Y(3-0)

**POLI 446 (1½) CANADIAN FOREIGN POLICY**

An examination of contemporary Canadian foreign policy, its aims, methods and effects and Canada's role in world affairs. Particular attention will be placed on the context (historical, political, cultural, geographic, economic) of policy making and the instruments (diplomatic, legal, political, economic, military) of its execution. NO(3-0)

**GROUP V — PUBLIC ADMINISTRATION****\*POLI 350 (3) PUBLIC ADMINISTRATION**

An introduction to the evolution of the administrative process in government, the theory, and practice of administrative decision making, and a review of issues in organizational structure, financial and personnel administration, budgeting and administrative responsibility. Y(3-0)

**POLI 351 (1½) PUBLIC POLICY ANALYSIS**

A consideration of various methods of explaining and evaluating public policies, with particular attention to the techniques employed by governments. F(3-0)

**POLI 352 (1½) THE PUBLIC SERVICES**

An examination of the role of public servants in the modern state, with

emphasis on selection, appointment, training and human relations; the political rights of public servants; and the role of public service unions.  
NO(3-0)

**POLI 353 (1½) THE POLITICS AND MANAGEMENT OF PUBLIC EXPENDITURE**

An examination of the budgetary processes within different levels of government, of the various forms of budgeting, and of the political and administrative factors influencing public expenditure outcomes.  
S(3-0)

**POLI 425 (formerly 325) (1½) LAW AND PUBLIC POLICY**

An analysis of the structures and practices of the courts, the legal profession, the police and related legal institutions in Canada.  
NO(3-0)

**POLI 457 (1½) THE POLITICS OF ENVIRONMENTAL AND NATURAL RESOURCE POLICY**

An examination of the formation and implementation of environmental and natural resource policy, with an emphasis on British Columbia. Alternative approaches to the analysis of the policy making processes will be considered. (Not open to students with credit in 435, 456, 456A, or 456B)  
NO(3-0)

**GROUP VI — CANADIAN GOVERNMENT AND POLITICS**

**POLI 320 (3) THE CANADIAN CONSTITUTION**

An analysis of Canadian constitutional law and practice; parliamentary government, the division of power, judicial authority, the Charter of Rights and Freedoms, constitutional amendment and related problems; some comparisons with other jurisdictions will be made.  
Y(3-0)

**POLI 360 (1½) CANADIAN FEDERALISM AND PUBLIC POLICY**

An examination of the constitutional, political, social, economic, and cultural bases of Canadian federalism, the dynamics of contemporary intergovernmental relations, and the impact of the federal system on public policy.  
F(3-0)

**POLI 361 (1½) PARTIES AND PRESSURE GROUPS IN CANADA**

An examination of political parties, pressure groups, and theories of representation in the Canadian context, with emphasis on the development, structure and ideologies of the major parties.  
S(3-0)

**POLI 362 (1½) COMPARATIVE PROVINCIAL POLITICS**

A comparative analysis of political structures and processes in the Canadian provinces, and the variations in their forms of political behaviour.  
S(3-0)

**POLI 465 (3) BRITISH COLUMBIA GOVERNMENT AND POLITICS**

An examination of the political institutions and processes of government in British Columbia seen in the context of the political and economic development of the province, its political cleavages and party system, and the formation of provincial public policy.  
Y(3-0)

**\*POLI 470 (3) GOVERNMENT IN CANADA**

A course designed for students in other disciplines who would like to gain some understanding of the structure and functioning of government in Canada. It will cover such topics as parties and political behaviour.

federalism, the bureaucracy and the parliamentary process. This course will be of particular interest to students in the Faculties of Education, Human and Social Development, Fine Arts, and Engineering. (Not open to students with credit in 100. Not open for credit to Political Science Major and Honours students)  
Y(3-0)

**GROUP VII — HONOURS**

**POLI 490 (1½ or 3) DIRECTED READING**

Directed reading and/or research for Honours students under the supervision of an available faculty member may be offered to meet special circumstances. No more than 3 units of directed reading may be applied toward degree requirements and, except with the approval of the Department, such units will not be applied toward the distribution requirement. (Not open to Majors except with special permission of the Department) (This course is generally not offered in Summer Studies)

**POLI 499 (3) HONOURS SEMINAR AND ESSAY**

A fourth year seminar for Honours students only, which will deal with selected problems of the discipline and will help students to develop a critical approach to specialized materials. The seminar will also assist students in the preparation of a graduating essay. The essay must conform to acceptable standards of style and format, and must be submitted before the end of second term classes.  
(3-0)

**GRADUATE COURSES**

Courses marked with an asterisk (\*) will be offered on a rotating basis subject to enrolment and the availability of faculty.

**POLI 505 (1½) PROBLEMS OF POLITICAL ANALYSIS**

An examination of theoretical viewpoints in the study of politics.

**POLI 506 (1½) APPROACHES TO POLITICAL ANALYSIS**

A review of the major traditions of political analysis.

**\*POLI 507 (1½) PUBLIC POLICY**

**\*POLI 508 (1½) COMPARATIVE POLITICS**

**\*POLI 509 (1½) POLITICAL THEORY**

**\*POLI 516 (1½) CANADIAN POLITICS**

**POLI 540 (1½) INTERNATIONAL RELATIONS**

**POLI 580 (6) LEGISLATIVE INTERNSHIP REPORT**

**\*POLI 590 (1½ or 3) DIRECTED READINGS**

590A and 590B — Political Theory

590C and 590D — Comparative Politics

590E and 590F — Public Law

590G and 590H — Contemporary Political Analysis

590J and 590K — International Relations

590L and 590M — Public Administration

590N and 590P — Canadian Federal and Provincial Politics

(May be repeated for credit, provided course content differs, to a maximum of 3 units)

**POLI 599 (6) THESIS**

(Grading: INP, COM, N or F)

**DEPARTMENT OF PSYCHOLOGY**

Ronald A. Hoppe, B.A. (Mich.), M.A., Ph.D. (Mich. St. U.), Professor and Chairman of the Department

Janet Beavin Bavelas, A.B., A.M., Ph.D. (Stanford), Professor

Michael E. Corcoran, B.A. (Northwestern), M.A., Ph.D. (McGill), Professor

Louis D. Costa, A.B. (C.C.N.Y.), M.A., Ph.D. (Columbia), Professor

David F. Hultsch, B.A. (Lycoming College), M.A., Ph.D. (Syracuse), Lansdowne Professor of Psychology and Assistant Chairman

Richard B. May, B.A. (Whitman), M.A., Ph.D. (Claremont), Professor  
G. Alexander Milton, B.A. (W. Wash.), M.S. (Ore.), Ph.D. (Stanford), Professor

Robert W. Payne, B.A. (Alta.), Ph.D. (London), Professor

Clare K. Porac, B.A. (Duquesne), M.A., Ph.D. (New School for Social Research), Professor

Otfried Spreen, B.A. (Bonn), Dipl.-Psych., Ph.D. (Freiburg), Professor  
Charles W. Tolman, B.S., M.S., Ph.D. (Wash.), Professor

Loren E. Acker, A.A., B.A., M.A., Ph.D. (Calif., Los Angeles), Associate Professor

Roger A. Dixon, B.A. (N. Colorado), M.A. (Chicago), M.S., Ph.D. (Penn. State), Associate Professor

Pam Duncan, B.A. (Wis. St.), M.A. (Chicago), Ph.D. (Wis.), Associate Professor

Robert D. Gifford, B.A. (Calif. Davis), M.A., Ph.D. (S. Fraser), Associate Professor

Bram C. Goldwater, B.A. (McGill), M.A. (Cornell), Ph.D. (Bowling Green), Associate Professor

Roger E. Graves, B.S., Ph.D. (M.I.T.), Associate Professor

Doreen Kilpatrick, B.A., M.A., Ph.D. (U. of Vic.), Adjunct Associate

Professor (1986-88)

Michael E.J. Masson, B.A. (Brit. Col.), M.A., Ph.D. (Colo.), Associate Professor

Frank J. Spellacy, B.A., (W. Wash.), M.Sc. (Ore.), Ph.D. (U. of Vic.), Associate Professor

Esther H. Strauss, B.A. (McGill), M.A. (Northeastern), M.Ed. (Boston), Ph.D. (Tor.), Associate Professor

Nancy Galambos, B.S. (Penn. State Univ. Coll. - Cortland), M.S., Ph.D. (Penn. State), Assistant Professor

Michael A. Hunter, B.A. (S. Fraser), M.A. (Waterloo), Ph.D. (S. Fraser), Assistant Professor

Michael Joschko, B.Sc. (McM.), M.A., Ph.D. (Windsor), Visiting Assistant Professor (1986-88)

Donald E. Read, B.A. (S. Fraser), M.A., Ph.D. (McGill), Assistant Professor

Lorne K. Rosenblood, B.S. (Case West. Res.), M.A., Ph.D. (Ohio St.), Assistant Professor

Fouad A. Hamdi, M.D. (Alexandria), Ph.D. (Edin.), Honorary Professor  
Thomas Allen, B.Sc. (U. of Vic.), Programmer Analyst

## GRADUATE PROGRAMS

For information on studies leading to the M.A., Ph.D. degrees, see page 231; for graduate courses, see page 133.

### GENERAL, MAJOR AND HONOURS PROGRAMS

Several undergraduate programs are offered by the Department of Psychology. The concentration in the General Program is designed to provide flexibility, and a general background for students planning to enter other fields such as social work or journalism. The Honours Program is recommended for students planning graduate work in scientific or professional psychology. The Major Program requires a degree of specialization in the last two years, and may permit the student to proceed to graduate study or to professional training or business careers if sufficiently high standing is obtained.

A student may proceed to either a B.A. or B.Sc. degree in Psychology. Students proceeding to the B.A. degree must take a minimum of 12 units of work outside psychology in any one or more disciplines offering a Major program leading to the B.A. degree (e.g. 6 units of English plus 6 units of Sociology would satisfy this requirement). Students proceeding to the B.Sc. degree must take a minimum of 12 units of work at any level from outside Psychology in any one or more disciplines offering a Major program leading to the B.Sc. degree (e.g. 6 units of Mathematics plus 6 units of Biology would satisfy this requirement).

**General** — 100 is prerequisite to all courses numbered 300 and above and is usually taken in the first year. The student's choice of one second year psychology course is recommended in the second year. Students must complete a minimum of 9 units numbered 300 or above.

**Major** — 100 is prerequisite to all courses numbered 300 and above and is usually taken in the first year. Major students must take 201, 210, 300A, 300B plus 12 units numbered above 300. At least 3 units must be chosen from each group (A and B). A: 311A, 311B, 312, 313 (or 313A or 313B), 315, 317, 337, 423, 424. B: 330, 331, 335, 336, 338, 339, 430.

**Honours** — Students seeking an Honours degree in Psychology must apply to the Honours Adviser of the department before the start of their fourth year. Prospective honours students must complete the honours application form at the Arts and Science Advising Centre (Clearihue B137). All interested students should seek the advice of the Adviser before their third year. Admission to the Honours Program requires a minimum 6.50 grade point average in all psychology courses and a grade point average of 3.50 in nonpsychology courses. Honours students are responsible for finding a supervisor for their Honours thesis. Consistent with the regulations of the Faculty of Arts and Science, students should complete the requirements for an Honours program in four academic years. In certain cases an extension to five years may be recommended, but students must complete a minimum of 12 units in the winter session in which they complete the honours thesis. Requests for extensions should be made through the Chairman of the Department to the Dean's office. 100 is prerequisite to all courses numbered 300 and above and is usually taken in the first year. 201, 210, 300A, 300B, 499, 400A or 400C and either 400B or 401 are required, plus an additional nine units numbered above 300. Students who are in their third year and are thinking of joining the Honours program are encouraged to attend 499. At least 3 units must be chosen from each group (A and B, see Major, above).

To graduate with an Honours degree, a student must have a minimum 3.50 grade point average for all work completed outside the Department. First Class Honours will be awarded to students who obtain:

(1) a graduating average of at least 6.50

(2) a grade point average of at least 6.50 for 300 and 400 level Psychology courses

(3) a grade of at least A- in 499

Second Class Honours will be awarded to students who obtain:

(1) a graduating average of at least 3.50

(2) a grade point average of at least 5.50 for 300 and 400 level Psychology courses

(3) a grade of at least B- in 499

A student who obtains a first class average in all 300 and 400 level Psychology courses but a second class grade in 499 will have the option of receiving a B.A. or B.Sc. with a First Class Major in Psychology or Second Class Honours. A student who achieves a grade lower than B- in 499 will graduate under the Major program provided all other requirements for the degree are fulfilled. The submission date for the thesis in Psychology 499 is the last day of classes.

## RECOMMENDED ELECTIVES

### First and Second Years:

Students planning to major or honour in Psychology are urged to select at least one course from each of several areas outside of the Psychology Department. A Grade XII mathematics course or its equivalent is recommended preparation for 300A, 300B and 400A, 400B and 400C. Students who plan to take 215A and 215B, 315, 415, 423, or 424 are encouraged to take BIOL 150; in addition BIOL 207 and 320 or 305 are recommended. For students intending to take 315, 215A and 215B are recommended in the second year. *It is strongly recommended that students take no more than six units of second year Psychology courses in any one winter session.* Frequently chosen first and second year nonpsychology electives include: ENGL 115, 116; MATH 102, 151; BIOL 150, 207; SOCI 100, 202, 209; ANTH 100; PHIL 100, 222A, 222B, 232, 269; STAT 250, 251; CSC 110, 115.

### Third and Fourth Years:

The Psychology Department recognizes the diversity of career orientations which might lead a student to concentrate in Psychology. Accordingly it suggests the following guidelines for upper level courses.

Students planning to enter social services — mental health, school psychology, social work, parole, child care and related fields; 311 or 313 (or 313A or 313B), 315, 330, 331, 430 or 432, 450, and at least 1½ units from 335, 336, 337, 338, and 339.

Students planning careers in business and industry, civil service, government, personnel work: 311, 330, 331, 334, 401, 414, 432, plus courses in other social sciences such as ECON 10, POLI 100, SOCI 319, 321.

Students planning careers in business and industry, civil service, government, personnel work: 311, 330, 331, 334, 401, 414, 432, plus courses in other social sciences such as ECON 100, POLI 100, SOCI 319, 321.

Students planning to pursue advanced degrees in Psychology, but not enrolling in Honours: 300, 400A and/or 400C, and 400B and/or 401 plus six units from group A and six units from group B.

Frequently chosen third and fourth year nonpsychology electives include SOCI 301, 304, 319, 325, 383; ED-D 316, 317, 417; BIOL 320, and PHIL 342A and 342B.

**NOTE:** The Bachelor's degree in Psychology is intended primarily to prepare the student for further advanced study in psychology or related fields (Education, Social Welfare, etc.), and in no way implied professional competence as a psychologist without such advanced training. Although students may on occasion find employment of a psychological nature with an undergraduate degree, it is expected that further preparation, perhaps in the form of in service training, will normally be required by employers.

### Individual Studies and Directed Readings:

During the Winter Session the Department of Psychology may give permission for individual studies and directed readings to be taken under the course numbers 390 and 490. Other course numbers are not offered as individual studies or directed readings at any time. During May-August, 390 and 490 are available only to students with an overall grade point average of 5.50 or higher in the last 15 units completed. Students seeking an exemption from these restrictions must make a formal application to the departmental undergraduate curriculum committee.

## UNDERGRADUATE COURSES

Students should consult the Department concerning courses offered in any particular year.

## NOTES:

- 100 is a prerequisite for all courses numbered 300 and above unless an exemption is specifically stated in the course description. Second year courses are open without the 100 prerequisite to all except first year students, although it is recommended that the student first take 100 whenever possible. Students are cautioned that enrollment in a second year psychology course without 100 could mean that they will be required to take 100 at a later date in order to qualify for admission to a course at the 300 or 400 level.
- It is strongly recommended that students take no more than 6 units of second year Psychology courses in any one winter session.
- Students who have completed Psychology 100 may enroll in up to 4½ units of psychology courses numbered 300 or above in their second year.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**\*PSYC 100 (3) GENERAL PSYCHOLOGY**

An introduction to the concepts, methods and history of modern psychology. Topics include perception, motivation, learning, brain processes, personality, and social processes. The purpose of this course is to present a broad survey; however, experimental demonstrations and applications will be employed to illustrate some selected topics.

Y (3-0)

**\*PSYC 201 (formerly half of 200) (1½) INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY**

An introduction to the issues related to basic research techniques used in experimental psychology; emphasis will be on the conceptual rather than the statistical rationale underlying the various research strategies. Areas that will be discussed include the nature of variables, types of measurement, how to generate and test hypotheses, types of validity, and how to interpret and report results. These topics will be elaborated in the context of in class demonstrations that will provide essential experience with the processes involved in conducting empirical research. (*Prerequisite:* 100 or at least second year standing)

J.B. Bavelas, C.K. Porac

FS(3-0)

**\*PSYC 210 (3) THE HISTORY OF PSYCHOLOGY**

This course is designed to provide students with the background necessary to facilitate a full appreciation of upper level courses. Current problems in psychology will be examined within a historical context by reference to outstanding past and present persons and issues. (*Pre- or corequisite:* 100)

C.W. Tolman

Y(3-0)

**\*PSYC 213 (formerly half of 200) (1½) HUMAN INFORMATION PROCESSING**

An introductory survey of important issues, phenomena, and experimental techniques in the field of human information processing; discussion will focus on both theories and research findings in the areas of human attention, perception, learning, memory, thinking, and problem solving; in class demonstrations will be used to illustrate important concepts and highlight relevant methodological procedures. This course will be particularly useful to those students planning to take Psychology 313 or 317. (*Prerequisite:* 100 or at least second year standing)

NO(3-0)

**\*PSYC 215A (formerly half of 230) (1½) INTRODUCTION TO BIOPSYCHOLOGY**

This course will deal with basic concepts of brain function in relation to behaviour. Topics will include basic aspects of neuronal function, general anatomy of the nervous system, and the functioning of the nervous system in relation to motor output, sensation and motivation. (*Prerequisite:* 100 or at least second year standing)

R.W. Skelton

F(3-0)

**\*PSYC 215B (formerly half of 230) (1½) INTRODUCTION TO BIOLOGICAL ASPECTS OF PSYCHOLOGY**

This course will deal with the relationships which exist between normal and abnormal biological states as they are related to human behaviour and cognition. Topics include brain injury, diet deficiencies, mental retardation and psychoses. (*Prerequisite:* 100 or at least second year standing)

S(3-0)

**\*PSYC 240 (3) INTRODUCTION TO SOCIAL PSYCHOLOGY**

A study of empirical approaches to the understanding of man's social behaviour. Topics will include social facilitation, social learning, aggression, conformity, attitudes, conflict, communication, and group perfor-

mance. Related methodological techniques will be integrated with these topics throughout the course. (*Prerequisite:* 100 or at least second year standing)

NO(3-1)

**\*PSYC 250 (1½) INTRODUCTION TO APPLIED BEHAVIOURAL PSYCHOLOGY**

A survey of behaviour modification and biofeedback treatment technologies; behavioural approach is taken on such topics as sexual dysfunction, phobias and anxieties, weight control, energy conservation, pollution, employment problems, institutional and clinical treatment, public health and medical care, and alcohol and drug dependency; examples of successful programs and associated research will be pertinent to students beginning careers in Human and Social Development, Law, Public Administration, Biology, Education, Medicine, Health Sciences and Social Sciences and those intending to take 311A, 311B, 337 or 338.

S(3-0)

**PSYC 300A (formerly half of 300) (1½) STATISTICAL METHODS IN PSYCHOLOGY: I**

This course contains a brief review of research methodology and then goes on to deal with descriptive statistics, properties of distributions, and an introduction to probability and inferential statistics as applied in psychology. Students are introduced to the University computer system and are expected to use computer based analyses of the statistical procedures covered in the course. (*Prerequisite:* 201. Students should have completed a mathematics course at the grade 11 or 12 level within the five years preceding enrollment in 300A)

F(3-1)

**PSYC 300B (formerly half of 300) (1½) STATISTICAL METHODS IN PSYCHOLOGY: II**

The course material contains a brief review of the topics covered in 300A and then deals with statistical analyses procedures for two group and multi group experimental designs. The differences between repeated measures and independent group designs and analyses are emphasized. Students are expected to analyze an experimental data set, using the appropriate statistical procedure, and to prepare a research report in the style of the American Psychological Association. (*Prerequisite:* 300A)

S(3-1)

**PSYC 311A (formerly half of 311) (1½) CONDITIONING AND LEARNING: COGNITIVE EMPHASIS**

A critical survey of the basic experimental findings and theories of learning process with emphasis on the conditions for learning, retention and transfer of learning; topics include classical and operant conditioning, reinforcement, generalization and discrimination, and an introduction to concept learning; this course will provide useful background for 313. (Students should choose between 311A (cognitive emphasis) and 311B (behavioural emphasis). 311A is not a prerequisite for 311B and students may not receive credit for both courses.)

NO(3-0)

**PSYC 311B (formerly half of 311) (1½) CONDITIONING AND LEARNING: BEHAVIOURAL EMPHASIS**

From a behaviourist's point of view, the field of "learning" concerns very general questions about how our behaviours are acquired, maintained, and modified. The approach and methodology which constitutes the experimental analysis of behaviour seeks answers to these questions in terms of observable environmental determinants. Such principles and phenomena as respondent and operant conditioning; positive and negative reinforcement; reinforcement schedules; generalization and discrimination; and punishment will be approached from this point of view. In addition to examining animal studies, the course is designed to give the student training in the application of behavioural principles to the understanding of everyday human behaviour. (311A is not a prerequisite for 311B. Students should choose between 311A (cognitive emphasis) and 311B (behavioural emphasis) and credit may be obtained for only one of the two courses. This course is the preferred prerequisite for 312.)

B.C. Goldwater  
F(3-0)**PSYC 312 (1½) ADVANCED CONDITIONING AND LEARNING: BEHAVIOURAL EMPHASIS**

This course follows Psychology 311B, examining some added complexities involved in phenomena covered there, as well as introducing some new topics, examples of which might include behavioural approaches to such "higher level processes" as attention, concept formation, and verbal

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behaviour; current controversies regarding the nature of reinforcement; and interrelations among instinctive, respondent, and operant behaviour. (*Prerequisite:* 311A or B or permission of instructor) NO(3-0)

**PSYC 313 (1½) (formerly 313A and 313B) COGNITIVE PSYCHOLOGY**

An introduction to information processing analyses of complex mental processes. Topics include pattern recognition, attention, memory systems, language processing, concept formation, problem solving, and decision making. Classical and recent theories and relevant research in each area will be described, and group laboratory projects will be assigned. (*Prerequisite:* 100 and third year standing.) NO(3-1)

**PSYC 315 (3) INTRODUCTION TO NEUROPSYCHOLOGY**

An introduction to neuroanatomy and neurophysiology as related to human and animal brain function and behaviour. Consideration of the contributions of neurology, experimental and clinical neuropsychology to the understanding of normal cognitive and affective functioning and of disturbances resulting from brain damage in selected areas. Demonstrations involving selected patients with cerebral lesions at the Royal Jubilee Hospital will be arranged during the second term. (*Prerequisite:* 215A)

E.H. Strauss Y(2-2)

**PSYC 317A (formerly half of 317) SENSATION AND PSYCHOPHYSICS**

This course covers the physical basis of human sensory processing. The physiology of the visual, auditory and minor senses is covered with an emphasis on how physiological factors related to our construction of a conscious sensory experience. In addition, this course deals with how sensory experiences are measured in human observers. The four classical psychophysical problems of detection, recognition, scaling and discrimination are covered with an emphasis on their statistical measurement. (*Prerequisite:* none, but students are strongly advised to have taken 300A) NO(3-0)

**PSYC 317B (formerly half of 317) (1½) HUMAN PERCEPTION**

An introduction to how our perceptual world is constructed from the input provided by our physical sensory structures. Topics include the construction of spatial percepts, the perception of form and art, and individual differences in perceptual experience. The emphasis is on the hypothesis testing aspects of our perceptual experience. (*Prerequisite:* 215A or 317A)

C. Porac S(3-0)

**PSYC 330 (3, formerly 1½) PERSONALITY**

An introduction to contemporary personality theory and research; survey of several traditional theories of individual behaviour (e.g. Freud, Rogers, need achievement), plus emphasis on newest developments in the field (e.g. social influences on personality); considerable emphasis on research and methods of evaluating theories.

R.W. Payne Y(3-0)

**PSYC 331 (3) SOCIAL PSYCHOLOGY**

A survey of theories and findings in the following areas: social perception, socialization, social motivation, attitude development and change, interpersonal interaction, and group processes. Y(3-0)

**PSYC 333A (1½) DEVELOPMENT IN CHILDHOOD AND ADOLESCENCE**

Survey of theories, methods, and research related to human development from conception through adolescence. Topics will include physical growth and development, cognitive functioning, personality and social development. Attention will be devoted to both normal development and problems of development. (Not open to students with credit in 335 and 336)

G.A. Milton F(3-0)

**PSYC 333B (1½) ADULT DEVELOPMENT AND AGING**

Survey of theories, methods, and research related to human development from early adulthood through old age. Topics will include physical health, cognitive functioning, personality, family relationships, work and retirement and death. Attention will be devoted to both normal development and problems of development. (Not open to students with credit in 339)

D.F. Hultsch F(3-0)

**PSYC 334A (formerly half of 334) (1½) PERSONNEL AND ORGANIZATIONAL PSYCHOLOGY**

This course covers research and theory in personnel selection, placement, training, motivation, satisfaction, leadership, productivity and communication. (Not open to students with credit in COMM 120)

NO(3-1)

**PSYC 334B (formerly half of 334) (1½) WORKPLACE AND CONSUMER PSYCHOLOGY**

This course covers research and theory on the relationship between employees and the work setting; it also introduces consumer psychology. The impact of workplace technology, stress, noise, light and office design on productivity, alcohol and drug abuse and safety behaviour is considered. Research in and methods of investigating consumer behaviour and advertising are surveyed.

R.D. Gifford S(3-1)

**PSYC 335 (1½) REVIEW OF RESEARCH IN INFANCY AND CHILDHOOD**

Extensive, research oriented review of work examining psychological processes from conception through about 12 years of age. Topics will include prenatal development, physical growth, perceptual and cognitive processes, language acquisition, personality development, and social processes. (Not open to students with credit in 333A) (*Prerequisites:* 201 and 210)

M.A. Hunter F(3-0)

**PSYC 336 (1½) REVIEW OF RESEARCH IN ADOLESCENCE**

Extensive, research oriented review of work examining psychological processes during adolescence. Topics will include physical development, cognitive processes, emotional development, social processes, and psychopathology. (Not open to students with credit in 333A) (*Prerequisites:* 201 and 210)

N. Galambos F(3-0)

**PSYC 337 (1½) CHILD BEHAVIOURAL DEVELOPMENT: PRINCIPLES AND ANALYSIS**

This course will cover the basic principles of behavioural development from infancy to adulthood. The emphasis will be upon a critical analysis of the individual child's behaviour as being reciprocally a product of, and a determiner of, particular child rearing and institutional/educational practices.

L. Acker F(3-0)

**PSYC 338 (1½) CHILD BEHAVIOURAL DEVELOPMENT ASSESSMENT AND MODIFICATION**

This course will extend the basic principles of behaviour to areas of application in home and institutional settings for infants, children and adolescents. The emphasis will be upon a critical analysis of various behaviour modification programs, their relationship to behaviouristic developmental theory, and the methodological requirements for implementing such programs. (*Prerequisite:* 311 or 337 or consent of instructor) NO(3-0)

**PSYC 339 (1½) REVIEW OF RESEARCH IN ADULTHOOD AND AGING**

Extensive research oriented review of work examining psychological processes during adulthood and aging. Topics will include biological processes, perceptual and cognitive processes, personality and social processes, sources of stress, psychopathology, and death. (Not open to students with credit in 333B) (*Prerequisites:* 201 and 210) NO(3-0)

**PSYC 340 (1½) INTERPERSONAL COMMUNICATION**

Considers communication as a social process, as the fundamental vehicle of human relationships, with emphasis on theory and research. Topics include various levels of communication (verbal/nonverbal, content/relationship); measurable characteristics of communication (incongruence, symmetry/complementarity); and face to face communication as a cybernetic system. The course does not cover linguistics, the mass media, nor personal communication skills. Text: P. Watzlawick, J.H. Beavin, D.D. Jackson, *Pragmatics of Human Communication*

J.B. Bavelas F(3-0)

**PSYC 342 (formerly 235) (1½) THEORIES AND METHODS IN LIFE-SPAN DEVELOPMENTAL PSYCHOLOGY**

A survey of the issues, theories and methods in the study of human psychological development across the entire span of life. Issues will include the influences of constitutional, familial and social factors in development. Theories will include stage, social learning, humanistic and

empirical-descriptive accounts of development. Methods will cover the cross sectional, longitudinal, cross sequential, clinical, normative and experimental processes. (*Prerequisite:* 201 and 210).  
R.A. Dixon S(3-0)

**PSYC 345A (formerly half of 345) (1½) DRUGS AND BEHAVIOUR: BASIC PRINCIPLES**

This is an introductory course designed to review the scientific literature on drugs, behaviour, and the central nervous system. Topics include introductions to pharmacology, neuropharmacology, the experimental analysis of behaviour, and the behavioural determinants of drug action. (*Prerequisites:* 215A or B, BIOL 150, or permission of the instructor)  
M.E. Corcoran F(3-0)

**PSYC 345B (formerly half of 345) (1½) DRUGS AND BEHAVIOUR: ADVANCED TOPICS**

This is a continuation of 345A, in which the general principals and information discussed in that course are applied to specific families of drugs. The drugs include psychomotor stimulants, opiate analgesics, ethanol and related depressants, major tranquilizers, anxiolytics, phantastants, and others. Discussion of specific drugs will include such topics as effects on conditioned and unconditioned behaviours, mechanisms of tolerance and dependence, stimulus properties, selfadministration, neural mechanisms of action, social implications of drug use, and therapeutic approaches to drug use. (*Prerequisite:* 345A) NO(3-0)

**PSYC 350 (3) ENVIRONMENTAL PSYCHOLOGY**

The course examines human interaction with the physical environment from a psychological perspective. Topics include environmental perception, cognition, and assessment; personality and environment; the dynamics of social space; the effects of temperature, sound, light and spatial arrangements in neighbourhoods, homes, schools and workplaces; psychological aspects of environmental hazards and disasters, the design of buildings, and resource management. (*Prerequisite:* 100 or registration in the Environmental Studies program)  
R.D. Gifford Y(3-1)

**PSYC 369 (LING 369) (formerly half of 370) (1½) DEVELOPMENTAL PSYCHOLINGUISTICS**

Offered in collaboration with the Department of Linguistics. The course covers the biological bases of language, the child's stage by stage acquisition of the phonology, morphology, syntax and semantics of the child's first language. Also treated are the child's metalinguistic abilities and growing awareness of the form and function of speech arts. (*Prerequisite:* 100 and a previous course in Linguistics)  
R.A. Hoppe, J.F. Kess S(3-0)

**PSYC 370 (LING 370) (1½, formerly 3) PSYCHOLINGUISTICS**

Offered in collaboration with the Department of Linguistics; a course in the psychology of language covering such topics as the nature and function of language, experimental psycholinguistics, the relationship of language and cognition, speech perception and processing, comprehension and production of sentences, utilization of semantic systems, bilingualism, and nonverbal communication, language and sociocultural factors. (*Prerequisite:* 100 and a previous course in Linguistics)  
R.A. Hoppe, J.F. Kess F(3-0)

**PSYC 390 (1½ or 3) SPECIAL PROBLEMS IN PSYCHOLOGY**

Directed independent study for the student. Complete arrangements must be made with an instructor in the Department before registering. (The maximum credit for 390 and 490 together must not exceed six units unless permission of the Chairman of the department is obtained.)

**PSYC 400A (1½) ADVANCED METHODS: THE GENERAL LINEAR MODEL**

The course is an introduction to advanced research designs and their underlying rationale. Experimental design and statistical techniques will be applied to problems in psychology. Extensive treatment will be given to the use of the general linear model. The course will examine designs having multiple independent variables and a single dependent variable. Topics covered include correlation, multiple regression, analysis of variance and sampling. (Not recommended for third year students without permission of the instructor.) (*Prerequisite:* 300 or permission of the instructor)  
M.E.J. Masson F(2-2)

**PSYC 400B (1½) ADVANCED METHODS: MULTIVARIATE ANALYSIS**

The course is a continuation of Psychology 400A to multivariate designs. Techniques used with multiple dependent variables such as factor analysis, multivariate analysis of variance and canonical correlation will be covered. In addition the historical and philosophical development of these techniques in psychological theory will be explored. (*Prerequisite:* 400A or 400C)  
M.A. Hunter S(2-2)

**PSYC 400C (1½) ADVANCED METHODS: ANALYSIS OF VARIANCE**

The focus of this course is on advanced research designs that serve as the foundation of empirical investigations involving multiple independent variables and a single dependent variable. Primary consideration will be given to testing experimental hypotheses through the use of analysis of variance and related techniques; with a secondary emphasis on investigative procedures that make specific use of correlational analyses. Both the rationale and the statistical machinery underlying these techniques will be elaborated in the context of practical research problems in psychology. (*Prerequisite:* 300 and third year standing or permission of the instructor) NO(2-2)

**PSYC 401 (1½) PSYCHOMETRIC METHODS**

This course will cover the measurement of individual differences, especially personality and ability traits. The focus will be on reliability and validity — how do we know whether, and to what degree, a psychological measure is reliable and valid? Topics include designs for estimating reliability and validity, advanced correlation, and current problems and issues in the field. (The course does not teach how to give psychological tests.) (*Prerequisite:* 400A or 400C)  
R.W. Payne S(2-2)

**PSYC 409 (1½) SOVIET PSYCHOLOGY**

An examination of some current psychological research and theory in the Soviet Union, its historical background, and its place in socialist society. NO(3-0)

**PSYC 410 (3) THEORETICAL FOUNDATIONS OF CONTEMPORARY PSYCHOLOGY**

An examination of the theoretical and methodological assumptions underlying the psychological study of behaviour, and their historical origins and development. A consideration of selected topics in the philosophy of science as they concern psychology, theoretical models in modern psychology, controversial issues, and a comparison of different approaches to the study of human behaviour.  
C.W. Tolman Y(3-0)

**PSYC 413 (1½) ADVANCED TOPICS IN COGNITIVE PSYCHOLOGY**

Selected topics drawn from 313 will be examined in detail. Emphasis will be on the construction and empirical testing of theories of cognitive processes. Laboratory projects will be assigned to provide an opportunity to apply these techniques. (*Prerequisite:* 313 or 313A or 313B) NO(3-1)

**PSYC 414 (1½, formerly 3) MOTIVATION AND EMOTION**

An examination of the psychological forces which activate, organize and direct human behaviour. Contemporary theoretical, conceptual and methodological issues will be assessed in the light of recent research findings and applications. Emphasis will be placed upon experiential and social factors in the relation between emotions and motivation. (Physiological factors are studied in other courses, e.g. 423, 424.) NO(3-0)

**PSYC 415 (1½) HUMAN NEUROPSYCHOLOGY**

The study of brain behaviour relationships with emphasis on clinical aspects. The course assumes basic knowledge acquired in 315 and discusses neurophysiological problems in a functional sequence (e.g. memory, language, right left differences, perceptual disorders) as they occur in brain damaged adults and children. Question of assessment of psychological impairment, reaction to brain damage and rehabilitation will be considered. One term paper is required. (*Prerequisite:* 315 or permission of instructor)  
R.E. Graves F(2-2)

**PSYC 423 (1½) ADVANCED TOPICS IN PHYSIOLOGICAL PSYCHOLOGY**

Topics will include the psychobiology of motivation, memory, and neural plasticity. There will also be some emphasis on the neuropharmacology of behaviour. (*Prerequisite:* 215A or BIOL 150)  
M.E. Corcoran S(3-0)

**PSYC 424 (1½) HUMAN PSYCHOPHYSIOLOGY**

The study of the physiological correlates of behaviour in the intact human subject. Topics will include the autonomic nervous system; measures and principles of research with the polygraph; physiological correlates of emotion, sleep and dreaming and psychopathology; conditioning of autonomic response; lie detection; and psychosomatic disorders. Laboratory assignments may be given. (*Prerequisite:* 215A or BIOL 150 is recommended, but not required)  
B.C. Goldwater F(3-0)

**PSYC 430 (3) ABNORMAL PSYCHOLOGY**

Definitions and models of the behaviour disorders; study of behaviour disorders with regard to social attitudes, origins, development, manifestations, assessment and treatment. Emphasis is on both the behavioural and humanistic approaches to problems in abnormal psychology. Tentative structure of the course includes one formal term paper.  
P. Duncan Y(3-0)

**PSYC 432 (3) SURVEY OF CLINICAL PSYCHOLOGY**

An introductory survey of clinical psychology, including clinical research, methods of behaviour assessment and modification, and the role of the clinical psychologist in the community. Tentative structure of the course includes guest speakers, lectures and discussion. Open only to third and fourth year students.  
NO(3-0)

**PSYC 435 (1½) SELECTED TOPICS IN DEVELOPMENTAL PSYCHOLOGY**

This course provides an in depth examination of selected topics in the psychological literature dealing with children and/or development. The topics covered in any given year will be announced annually by the department before registration. Students receive 1½ units for this course. However, with the permission of the Chairman of the Department, the course may be taken more than once for a maximum of 3 units. (*Prerequisite:* 3 units of 300 or 400 level Psychology and permission of the instructor)  
NO(3-0)

**PSYC 436 (1½) PSYCHOPATHOLOGY OF CHILDHOOD AND ADOLESCENCE**

A detailed study of theoretical and research approaches to the understanding of developmentally related disorders of childhood and adolescence. Emphasis will be on etiology, description and treatment of these disorders which are in specific developmental "stages", although other disorders which frequently occur during childhood/adolescence will also be considered. (*Prerequisites:* 335 or 336)  
G.A. Milton S(3-0)

**PSYC 439 (SOCI 485) (1½) SEMINAR IN GERONTOLOGY**

Offered in collaboration with the Department of Sociology; a course on the social and psychological aspects of gerontology; faculty members will present seminars on current research interests, and students will present seminars drawn from the following list of topics: physiological and neurological aspects of aging; cognitive functioning; personality; sexuality; work, retirement and leisure; psychopathological aspects of aging; death and dying; widowhood; demographic trends and consequences; aging and the family; age stereotypes and discrimination; methodological and statistical problems in the study of aging and the aged. (*Prerequisite:* 339 or SOCI 385 or permission of instructor) (Enrollment limited to 20 students)  
NO(3-0)

**PSYC 450 (3) DEVELOPMENTAL HANDICAP AND LEARNING DISABILITIES**

A survey of prevalence, causes, research, theory and applied aspects of developmental handicap and learning disabilities in children, adolescents, and adults; second term deals primarily with topics of training, treatment, education, integration, law and attitudes. Includes visits to several hospital and other facilities. (Open to nonpsychology students in related fields. One term paper may be required) (*Prerequisites:* 100 and either fourth year standing or written permission of the instructor)  
NO(3-0)

**PSYC 490 (1½ or 3) ADVANCED SPECIAL PROBLEMS IN PSYCHOLOGY**

Independent study for the advanced student. Complete arrangements must be made with an instructor in the Department before registering. (The maximum credit for 390 and 490 together must not exceed six units unless permission of the Chairman of the Department is obtained.)

**PSYC 499 (3) HONOURS THESIS AND SEMINAR**

Students will attend a weekly seminar which includes oral presentation of their proposed thesis research in the first term and a progress report of

the research in the second term. For the remainder of the program, the students will work closely with a faculty supervisor regarding details of the written thesis which is submitted in April. (Third year students who are thinking of joining the Honours program are encouraged to attend 499.) (*Prerequisite:* Honours standing)  
O. Spreen, R.B. May Y(1-2-1)

**GRADUATE COURSES**

Students must consult the Department concerning courses offered in any year.

Along with the general requirements for admission to the Faculty of Graduate Studies, the Psychology Department requires applicants for graduate programs in psychology to submit scores on both the general and psychology versions of the Graduate Records Examination.

**PSYC 501 (1-5) PROSEMINAR****PSYC 502 (1-4½) RESEARCH APPRENTICESHIP****PSYC 503 (1½-6) PRACTICUM IN CLINICAL PSYCHOLOGY**  
(Grading: INC, COM, N of F)**PSYC 504 (1½-6) INDIVIDUAL STUDY**

(May be taken more than once provided course content differs.) (The student must consult with the instructor about the area of study prior to registration. A maximum of 6 units of 504 may be taken in any one Winter Session at the discretion of the student's Supervisory Committee.)

**PSYC 506 (1½) HUMAN LEARNING**

Courses 506 to 561 inclusive may be taken more than once, provided course content differs, to a maximum of 6 units at the discretion of the student's Supervisory Committee. Each area carries 1½ units of credit. The specific content area will be designated prior to registration.

**PSYC 507 (1½) PERSONALITY****PSYC 508 (1½) MOTIVATION****PSYC 509 (1½) HISTORY OF PSYCHOLOGY****PSYC 510 (1½) THEORIES OF PSYCHOLOGY****PSYC 512 (1½) PHYSIOLOGICAL PSYCHOLOGY****PSYC 514 (1½) PERCEPTION****PSYC 515 (1½) HUMAN NEUROPSYCHOLOGY****PSYC 516 (1½) PSYCHOTHERAPY****PSYC 517 (1½) RESEARCH METHODS IN PSYCHOLOGY****PSYC 518 (1½) PSYCHOMETRIC METHODS****PSYC 519 (1½) SOCIAL PSYCHOLOGY****PSYC 520 (1½) DEVELOPMENTAL PSYCHOLOGY****PSYC 523 (1½) PSYCHOPATHOLOGY****PSYC 524A (1½) PSYCHOLOGICAL ASSESSMENT: I****PSYC 524B (1½) PSYCHOLOGICAL ASSESSMENT: II****PSYC 524C (3) PSYCHOLOGICAL ASSESSMENT: III****PSYC 524D (1½) PSYCHOLOGICAL ASSESSMENT: IV****PSYC 525 (1½) LEARNING DISORDERS****PSYC 526 (1½) SOCIAL PROCESSES****PSYC 527 (1½) SOCIAL DESIGN****PSYC 528 (1½) CLINICAL PSYCHOLOGY****PSYC 529 (1½) PSYCHOPHYSIOLOGY****PSYC 531 (1½) ENVIRONMENTAL PSYCHOLOGY****PSYC 532 (1½) PHARMACOPSYCHOLOGY****PSYC 535 (1½) ADVANCED NEUROPSYCHOLOGY TOPICS**

Seminars on Selected Research Topics in Experimental and Clinical Neuropsychology.

**PSYC 550 (1½) APPLIED BEHAVIOUR ANALYSIS****PSYC 560 (1½) BASIC TOPICS IN LIFESPAN DEVELOPMENT AND AGING****PSYC 561 (1½) ADVANCED TOPICS IN LIFESPAN DEVELOPMENT AND AGING**

(*Prerequisite:* 560)

**PSYC 562 (1½) SPECIAL TOPICS IN LIFESPAN DEVELOPMENT AND AGING**

(May be taken more than once for credit up to a maximum of 6 units.)

**PSYC 570 (LING 570) (1½ or 3) PSYCHOLINGUISTICS**

A seminar offered in collaboration with the Department of Linguistics. Selected topics of interest in understanding the comprehension and production of natural language are examined. The most recent topics have been sentence processing, discourse analysis, linguistic inference and the resolution of ambiguity, and the development of cognitive science interests in reasoning and discourse processes as well as the structure of mental representations.

R.A. Hoppe, J.F. Kess

**PSYC 571 (LING 571) (1½ or 3) DEVELOPMENTAL PSYCHOLINGUISTICS**

A seminar offered in collaboration with the Department of Linguistics. Selected topics of interest in understanding the acquisition of the child's first language in the areas of phonological and grammatical abilities, as well as the child's knowledge of semantic systems and discourse rules. Recent topics have been the development of conversational abilities in children, including turn taking, questioning and answering, and politeness and negotiation in speech acts.

R.A. Hoppe, J.F. Kess

**PSYC 599 (3-6) THESIS**

(Grading: INP, COM, N or F)

**PSYC 602 (1-6) INDEPENDENT RESEARCH****PSYC 603 (1½-6) ADVANCED CLINICAL PRACTICUM**

(Grading: INC, COM, N or F)

**PSYC 604 (1½-6) INDIVIDUAL STUDY**

(May be taken more than once provided course content differs.) (The student must consult with the instructor about the area of study prior to registration. A maximum of 6 units of 604 may be taken in any one Winter Session at the discretion of the student's Supervisory Committee.)

**PSYC 605 (1½ or 3) PRACTICUM IN THE TEACHING OF PSYCHOLOGY**

Teaching practicum with individual instructors of the department in areas of potential teaching interest for the student.

(Grading: INC, COM, N Or F)

**PSYC 606 (15) INTERNSHIP**

Five hundred to two thousand hours of supervised practical experience.

**PSYC 624 (1½-6) ADVANCED CLINICAL ASSESSMENT**

Advanced techniques and interpretation for a variety of clinical assessment devices will be emphasized. Exposure to specialized assessment tools and opportunity to obtain experience in assessment.

**PSYC 628 (1½) ADVANCED CLINICAL PSYCHOLOGY**

May be taken in areas A, B, C, and/or D, to a maximum of 6 units but only by Ph.D. candidates.

**PSYC 699 (3-15) Ph.D. DISSERTATION**

(Grading: INP, COM, N or F)

## DEPARTMENT OF SLAVONIC STUDIES

Zelimir B. Juricic, B.A., M.A. (Brit. Col.), Ph.D. (Nott.), Associate Professor and Chairman of the Department

Gunter H. Schaarschmidt, M.A. (Alta.), Ph.D. (Indiana), Professor  
Zbigniew Folejewski, M.A. (Wilno), Ph.D. (Uppsala), Adjunct Professor (1987-89)

Nicholas V. Galichenko, B.A., M.A. (Brit. Col.), Ph.D. (McGill), Assistant Professor

### GENERAL AND MAJOR PROGRAMS IN RUSSIAN

The Department of Slavonic Studies offers a full complement of courses in Russian (and Slavonic) Studies leading to the B.A. degree in the General or Major Programs. All students planning a program in the Department of Slavonic Studies should consult the Departmental Adviser concerning their selection of courses both within and outside the Department. Students specializing in particular programs will find that they have sufficient electives to enable them to concentrate (double Major) in a second field, in such recommended areas as History, Political Science, or a modern language. A wise selection of courses is therefore important, particularly to those students who may wish to enter graduate school, teaching, library work, government service, etc.

Students planning to take either a General or Major B.A. in Russian must have a satisfactory standing in courses at the 200 level. Students with advanced credit, or those competent in Russian, will be placed at an appropriate level. Students wishing to teach Russian as a teaching area in the Faculty of Education's Secondary Curriculum should consult page 154.

#### PROGRAMS IN RUSSIAN

##### GENERAL

100, 200 and 203 (or 149 and 203); nine units of Russian, Slavonic or Serbo-Croatian courses at the 300 or 400 level.

##### MAJOR

100, 200 and 203 (or 149 and 203); 302, 308, 406, plus six additional units of Russian, Slavonic or Serbo-Croatian courses at the 300 or 400 level.

Only 3 units of courses from the following list may be taken as required courses for the Major in Russian: RUSS 301, 304, 414; SLAV 312, 315, 340, 341, 374, 376, 443.

### COURSES

*Students should consult the Department concerning courses offered in any particular year.*

Courses marked with an asterisk (\*) are not offered owing to financial exigency. The Department intends to offer them as soon as funding is available and enrollment is sufficient.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### RUSSIAN

**RUSS 100 (3) FIRST YEAR RUSSIAN**

Introduction to the fundamentals of Russian grammar; basic reading, writing and conversational skills. (*Prerequisite:* No prior knowledge of Russian is required.) Text: Clark: *Russian* (3-1)

**RUSS 149 (6) INTENSIVE RUSSIAN**

This course is designed to cover a basic two year study of the Russian language in one year (equivalent to Russian 100 plus Russian 200) and to provide a rapid and thorough grounding in how to read, write and speak Russian, with an emphasis on making practical use of the language as early as possible. Short texts and audiovisual materials will be used to reinforce reading and comprehension and to prepare students for conversation practice. (*Prerequisite:* None. Students with credit for 100 may not take this course for credit. Students not making satisfactory progress will be advised to transfer to 100.) (5-2)

**RUSS 200 (3) SECOND YEAR RUSSIAN**

Completion of the fundamentals of Russian grammar. Word building and idiomatic usage. Readings from Russian and Soviet authors and the press. (*Prerequisite:* 100) (Not open to students with credit for 149) (3-1)

**RUSS 203 (3) ORAL AND WRITTEN PRACTICE**

This course is designed to provide students with oral and written practice in Russian. (*Prerequisite:* 100) (Credit cannot be obtained for both 201 (or 300 or 202) and 203.) (3-0)

**RUSS 301 (1½) ASPECTS OF RUSSIAN CULTURE (In English)**

A survey of outstanding cultural trends against the background of Russia's past and present. Lectures will focus on traditional concepts and major developments in folklore, religion, music, literature, philosophy, art, and architecture in an attempt to give students a cultural perspective for viewing the Russian way of life. (*Prerequisite:* None, this course is open to all students) (3-0)

**RUSS 302 (3) RUSSIAN CONVERSATION AND COMPOSITION**

This course, conducted completely in Russian, will emphasize oral practice and conversational exchange. It will also require the regular composition of essays. (*Prerequisite:* 200 and 203, or permission of the Department) (4-0)

**RUSS 304 (1½) LITERATURE AND CINEMA IN THE U.S.S.R. (In English)**

A survey of selected films that are adaptations of significant literary works or illustrate important cultural events or movements. (*Prerequisite:* None, this course is open to all students) (3-0)

**RUSS 308 (3) RUSSIAN LITERATURE IN TRANSLATION (In English)**

A survey of Russian literature from its beginnings to the Soviet period.

This is a required course for Russian major students to be taken in their third or fourth year. (Offered in alternate years) (*Prerequisite*: None. This course is open to all students except students with credit in 306 or 307) (3-0)

**\*RUSS 321 (3) RUSSIAN WORKSHOP IN THE SOVIET UNION**

Under the supervision of faculty, students will be engaged in specialized projects dealing with Russian language and culture. (May be taken more than once to a maximum of 6 units with permission of the Department) (*Prerequisite*: 100 or 390 or the permission of the Department) (Note: This course will involve one month's study in the Soviet Union; for details consult the Department.)

**\*RUSS 331 (formerly 250) (1½) THE PEOPLES OF THE SOVIET UNION (In English)**

An introductory survey of the cultures of the non-Slavic peoples of the Soviet Union. (*Prerequisite*: None. This course is open to all students) (3-0)

**RUSS 350A (formerly half of 350) (1½) READINGS IN RUSSIAN LITERATURE OF THE 19TH CENTURY**

This course will provide students with an introduction to the Golden Age of Russian literature and with practice in the reading of literary Russian. Writers to be studied include Pushkin, Lermontov, Gogol, Turgenyev, Tolstoy, Dostoevsky and Chekhov. (*Prerequisite*: 200 or 149, and 203, or permission of the Department) (3-0)

**RUSS 350B (formerly half of 350) (1½) READINGS IN SOVIET LITERATURE FROM THE REVOLUTION TO THE PRESENT**

This course will acquaint students with the works of 20th century Soviet writers: Gorky, Babel, Zamyatin, Bulgakov, Solzhenitsyn, Aksenov, Shukshin and Trifonov. (*Prerequisite*: 200 or 149, and 203, or permission of the Department) (3-0)

**\*RUSS 390 (3) RUSSIAN READING COURSE**

A one year course, intended for students who wish to read Soviet journals in the fields of the Natural and Social Sciences and the Humanities. Material is chosen corresponding to the students' areas of interest. (*Prerequisite*: None, this course is open to all students. Students who have passed 100 cannot receive credit for this course.) (Offered in Summer Studies) (3-0)

**RUSS 406 (3) ADVANCED COMPOSITION AND STYLISTICS**

The course is conducted entirely in Russian and emphasizes written composition, stylistic analysis, and conversational fluency. (*Prerequisite*: 302) (3-0)

**RUSS 414 (formerly part of 412 and 413) (1½) TOLSTOY AND DOSTOEVSKY (In English)**

The works of two major Russian writers of the 19th century will be studied against the background of their lives and times. (*Prerequisite*: Second year standing) (3-0)

**RUSS 426 (1½) PRACTICAL TRANSLATION**

A study of practical translation from and into Russian. Material will be drawn from a representative variety of fields including business, law, social work, politics, literature, Soviet press and sciences. (*Prerequisite*: 302) (3-0)

**RUSS 427 (1½) ADVANCED CONVERSATION**

This course, conducted entirely in Russian, is designed to further the students' command of idiomatic Russian and to enhance oral skills. (*Prerequisite*: 302, or permission of the Department) (3-0)

**RUSS 434 (1½ or 3) SPECIAL TOPICS**

This course is designed for Major students and may be offered either as a reading course, or a seminar, depending on the students' interest and on the availability of a supervising instructor. (May be taken twice in different topics to a maximum of six units) (*Prerequisite*: 200 or 149, and 203, and permission of the Department) (3-0)

**SLAVONICS**

**SLAV 312 (POLI 312) (3) COMMUNIST POLITICAL SYSTEMS (in English)**

An analysis of governmental processes in Communist ruled political systems, with emphasis on Eastern Europe, the U.S.S.R., and mainland China; comparative analysis of Communist revolutions, parties and groups, leadership elites, policy making and administration, political culture and socialization; and the development of the Communist inter-

national system. (Students are strongly advised to complete an introductory course in Political Science before undertaking this advanced course) (3-0)

**SLAV 315 (POLI 315) (1½) GOVERNMENT AND POLITICS IN THE U.S.S.R. (in English)**

An intensive analysis of the governmental process in the Soviet Union: examination of the political development of the U.S.S.R., the political culture and socialization process, interest groups and policy making process, administration and the judicial system. (Students are strongly advised to complete an introductory course in Political Science before undertaking this advanced course) (3-0)

**SLAV 340 (LING 340) (1½) INTRODUCTION TO THE SLAVIC LANGUAGES (In English)**

This course will acquaint students with the family of Slavic languages, their history and place within the Indo-European language family, and their present day structure. (*Prerequisite*: A previous course in Linguistics or permission of the Department) (3-0)

**SLAV 341 (LING 341) (1½) SEMINAR IN A SLAVIC LANGUAGE: STRUCTURE AND HISTORY (In English)**

Although designed as a continuation of 340 (Linguistics 340), this course can be taken independently as well, and more than once for credit (in different languages), to a maximum of 3 units. This course will deal with the history and structure of a Slavic language not offered otherwise in the Department of Slavonic Studies. Depending upon demand, a different language will be treated in each given year. Languages offered at present are: Sorbian, Polish, Ukrainian, Czech. (*Prerequisite*: A previous course in Linguistics or permission of the Department) (3-0)

**SLAV 374 (HIST 374) (3) IMPERIAL RUSSIA, 1689-1917 (In English)**

A history of Russia from Peter the Great to the fall of the monarchy. The course traces the response of the Russian state and Russian society to changing national needs and the challenge of the West. Through reports and discussions, emphasis will be given to periods of rapid change. (Students are strongly advised to complete an introductory course in history before undertaking this advanced course.)

D.L. Senese

Y(3-0)

**SLAV 376 (HIST 376) (1½) THE SOVIET UNION (In English)**

A history of the U.S.S.R. from 1917 to the present. The course will analyze the forces that have moulded the policies of the Communist leadership and examine how these policies have affected the shape of Soviet society and the role of the Soviet Union in world affairs. (Students are strongly advised to complete an introductory course in history before undertaking this advanced course.)

D.L. Senese

F(3-0)

**SLAV 390 (1½ or 3) DIRECTED STUDIES IN A SLAVIC LANGUAGE**

This course may be offered as a reading or grammar course at any level, from introductory to advanced. The language may be Serbo-Croatian, Russian, or another Slavic language. The course may also be offered as an introduction to teaching methodology in the Russian language. (May be taken more than once in a given language to a maximum of six units) (*Prerequisite*: Permission of the Department)

**SLAV 443 (POLI 443) (1½) COMMUNIST INTERNATIONAL RELATIONS (in English)**

An examination of the theory and practice of relations among Communist Party states, analyzing the domestic and external sources of behaviour, the comparative conduct of foreign policy, the integration and disintegration of the "world socialist system". (Students are strongly advised to complete an introductory course in Political Science before undertaking this advanced course) (3-0)

**SERBO-CROATIAN**

**\*SERB 300 (3) FIRST YEAR SERBO-CROATIAN**

Introduction to the fundamentals of Serbo-Croatian grammar; basic reading, writing and conversational skills. (*Prerequisite*: A 200 level course in a foreign language or its equivalent, or the permission of the Department) (3-0)

**\*SERB 400 (3) SECOND YEAR SERBO-CROATIAN**

Review of essential grammar, progressing into more advanced grammar and composition; conversation with some practice in the language laboratory. (*Prerequisite*: 300, or its equivalent, or the permission of the instructor) (3-0)

## DEPARTMENT OF SOCIOLOGY

R. Alan Hedley, B.A., M.A. (Brit. Col.), Ph.D. (Ore.), Professor and Chairman of the Department  
 Robert B. Hagedorn, B.A. (San. Fran. St.), M.A. (Wash.), Ph.D. (Texas), Professor  
 Jean E. Veevers, B.A., M.A. (Alta.), Ph.D. (Tor.), Professor  
 Stephen D. Webb, B.A. (William and Mary), M.A. (George Washington), Ph.D. (Tennessee), Professor  
 Paul M. Baker, B.A. (U. of Vic.), M.A., Ph.D. (Minn.), Associate Professor  
 William K. Carroll, B.A. (Brock), M.A., Ph.D. (York), Associate Professor  
 C. David Gartrell, B.A. (Brit. Col.), M.A., Ph.D. (Harvard), Associate Professor  
 Daniel J. Koenig, A.B. (Notre Dame), M.S. (Florida St.), Ph.D. (Illinois), Associate Professor  
 Richard L. Ogmundson, B.A. (U. of Vic.), M.A., Ph.D. (Mich.), Associate Professor  
 T. Rennie Warburton, B.A. (Leeds), Ph.D. (London), Associate Professor  
 Roy E.L. Watson, B.A., M.A., Ph.D. (Tor.), Associate Professor  
 Mary J. Gallant, A.B., M.A. (Missouri), Ph.D. (Minn.), Assistant Professor  
 Susan S. Dier, B.A., M.A. (U. of Vic.), Visiting Lecturer (1987-88)  
 Richard Haigh, B.A., M.Sc., Ph.D. (Alta.), Visiting Assistant Professor (1987-88)

### GRADUATE PROGRAM

For information on studies leading to the M.A. degree, see page 233; for graduate courses see page 138.

### UNDERGRADUATE PROGRAMS

The Department offers General, Major and Honours programs. Students interested in any of these programs are urged to consult the departmental undergraduate adviser as early as possible.

Sociology 100 is required for all three programs. This requirement may be satisfied by course challenge or may be omitted by permission of the Department.

**General:** In addition to 100, the General Program requires three units at the second year level and nine additional units of Sociology from courses numbered 300 and above.

**Major:** In addition to 100, the Major Program requires 210, 211, 302, 371, 375, 402 and 7½ additional units of Sociology numbered 300 and above.

**Honours:** In addition to 100, the Honours program requires 210, 211, 302, 371, 375, 402, 471, 499, and 10½ additional units of Sociology numbered 300 and above. It is recommended that Honours students take Sociology 371 and 471 as early as possible.

To receive a First Class Honours degree a student must obtain a grade of at least A- in 499, and a minimum grade point average of 7.00 or higher for all Sociology courses numbered 300 and above, and have a minimum graduating average of 6.50.

To receive a Second Class Honours degree a student must obtain a grade of at least B- in 499, and a grade point average of at least 6.00 in all Sociology courses numbered 300 and above, and have a minimum graduating average of 3.50.

Honours students who do not meet the above requirements, but complete those for a Major in Sociology, may opt to receive a Major degree. A student who opts for this and who has a graduating average of 6.50 would receive a Major in Sociology with First Class standing, while a student with a graduating average between 3.50 and 6.49 would receive a Major degree with Second Class standing.

### UNDERGRADUATE COURSES

Some of these courses are not offered every year. Please consult with the Department to find out which courses will be given in a particular year.

Prerequisite for Third and Fourth Year courses: Courses numbered 300 and above may be chosen as electives by students in other departments if one of the following conditions is satisfied:

- (a) Completion of 100.
- (b) The student has at least third year standing and the permission of the course instructor.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### **SOCI 100 (1½ formerly 3) INTRODUCTION TO SOCIOLOGY**

A general introduction to the perspectives and methods of sociology, including a consideration of basic concepts and problems in the analysis of groups and societies. (3-0)

#### **SOCI 103 (formerly half of 200) (1½) CANADIAN SOCIETY**

The origins, development, and structure of Canadian society analyzed in terms of the new Canadian political economy. Examples of questions which may be addressed are: What kind of society exists in Canada? How did it come to acquire its unique features? What role has immigration played in Canada's development? What kinds of social inequality exist in Canada and why? (3-0)

#### **SOCI 202 (1½) AN INTRODUCTION TO SOCIAL PROBLEMS**

A survey of the incidence, correlates, effects and social response to crime and delinquency, familial disruption, economic deprivation and racial, ethnic and sex discrimination, etc. (3-0)

#### **SOCI 203 (formerly half of 200) (1½) CANADIAN SOCIAL ISSUES**

Issues facing Canadian society examined from the standpoint of the new Canadian political economy. Topics addressed may include: Foreign domination, national identity and national integration; Quebec in Canada; regionalism; native peoples' concerns; multiculturalism; immigration policy; the social position of women. (3-0)

#### **SOCIO 210 (1½) HISTORY OF SOCIOLOGICAL THEORY**

Analysis of major theoretical influences on the development of sociology, including the work of Marx, Weber, Durkheim, Simmel, Mead, Parsons and others. (Not open to students who have completed 209 or 300) (3-0)

#### **SOCI 211 (1½) INTRODUCTION TO SOCIOLOGICAL RESEARCH**

Introduction to important concepts and strategies of social research to enable students to evaluate critically the results of published research and begin to carry out research of their own. The course will present current methodological issues and the basic steps involved in doing research. (Not open to students who have completed 209 or 375) (3-0)

#### **SOCI 301 (3) DEVIANCE AND SOCIAL CONTROL**

Criminological conceptualizations and statistics are critically analyzed. Various types of social deviance are analyzed and used as case studies to outline the evolution of social control from religion through law to medicine and science. (3-0)

#### **SOCI 302 (formerly part of 300) (1½) SOCIOLOGICAL EXPLANATIONS**

Nature of explanations in sociological theory, combining an evaluation of different conceptions of the nature of science with an examination of important sociological theorists and frameworks. (Not open to students who have completed 300) (Prerequisite: 210 or permission of instructor) (3-0)

#### **SOCI 304 (3) THE INDIVIDUAL AND SOCIETY**

Sociological perspectives on social psychology, emphasizing the importance of social structure in accounting for, e.g., social cognition, the self, social interaction, collective behaviour; students will have the opportunity to experience directly the diverse research methods used by social psychologists in a series of research exercises for the course. (3-0)

#### **SOCI 305 (3) SOCIOLOGY OF FAMILIES AND HOUSEHOLDS**

Consideration of similarities and differences regarding families and households as an alternative unit of analysis. In the first term the focus will be upon families and households in comparative perspective, and their relationship to the larger society. In the second term the internal organization of families and households and interpersonal processes within them will be examined. Sex roles. The socialization of the young. Alternatives to the conventional family. (3-0)

#### **SOCI 310 (1½) RELIGION IN SOCIETY**

Selected theories and research on the relationship between religion and other areas of society. Topics may include: sects, cults and other religious organizations; religion and the social position of women; religion and political conflict; the issue of the rising or declining influence of religion in contemporary societies. (3-0)

#### **SOCI 311 (1½) IDEOLOGY AND SOCIETY**

Selected topics from Marx, Mannheim and contemporary sociological studies on the relation of ideology to social structure and social change. (3-0)

**SOCI 315 (1½, formerly 3) CLASS, STATUS, AND POWER**

An overview of theory and research in the area of social inequality. Focus is on the sources and consequences of the various forms of inequality (e.g., political, social, economic) found in present day societies. (3-0)

**SOCI 316 (1½) SOCIAL MOVEMENTS**

A study of the sources, stages and consequences of social movements. Various theories about the nature of social movements will be discussed. Data bearing on these theories concerning topics such as the nature of participants, the importance of elite leadership, the role of communication networks, and the activity of agents of social control will also be considered. Specific social movements, such as feminism, environmentalism, gay and lesbian liberation, the peace movement, trade unionism, socialism, and national liberation will be examined in detail. (3-0)

**SOCI 319 (1½) INDUSTRIAL SOCIOLOGY**

Major topics include industrialization and the relation between the rich and poor nations, industrialization in Canada, labor force trends, individual-work linkages and labour-management relations. (3-0)

**SOCI 321 (1½) SOCIOLOGY OF OCCUPATIONS**

Attitudes to work, similarities and differences between occupations; the nature of professions; the contrast between jobs and careers. (3-0)

**SOCI 323 (1½) STRUCTURE OF FORMAL ORGANIZATIONS**

Theories of and methodological problems in the study of organizational structures. Structural dimensions of the division of labour, power, communication, hierarchy, size, technology, and the relationships between organizations will be stressed. (3-0)

**SOCI 324 (1½) PROCESS AND CHANGE IN FORMAL ORGANIZATIONS**

The first half of the course will cover such topics as norms, values, and roles, including morale, administration, job satisfaction and alienation. The second half will cover organizational change including the evolving types of formal organizations. (3-0)

**SOCI 325 (1½, formerly 3) SMALL GROUP DYNAMICS**

A survey of sociological approaches to small groups, including topics such as group formation and cohesion, group influence on the individual, group differentiation, decision making and problem solving in groups, and collective behaviour. Small group research methodology will be a major concern, and will be taught by a series of labs in the Small Groups Laboratory as well as in the field. (3-0)

**SOCI 326 (1½) SOCIAL NETWORKS**

This course examines the major models, methods, and findings which characterize network analysis as an approach to the study of social life; the following areas may be discussed: friendship, social influence and status, small groups, communication and diffusion of information, corporate and community organization, social and economic mobility; the sorts of questions posed include: do contacts really make a difference in the kinds of jobs people get? How small is the "small world"? How closely connected are the boards of directors of major corporations? (3-0)

**SOCI 331 (formerly half of 330, 415) (1½) POLITICAL SOCIOLOGY**

Study of the social bases (e.g. region, class, religion, ethnicity, language, culture) of political behaviour. (3-0)

**SOCI 332 (formerly half of 330, 415) (1½) ELITES AND SOCIETY**

Study of institutional elites (e.g., business, labour, state, media, church, educational, military) and their roles in society. (3-0)

**SOCI 335 (1½) RACE AND ETHNICITY**

Minority and ethnic groups within complex societies with special reference to Canada. (3-0)

**SOCI 342 (1½) WORLD DEMOGRAPHY**

Study of the growth, distribution and movement of the world population with special emphasis upon the social causes of changes in patterns of fertility, mortality and migration and the social implications of these changes. (Note: Credit cannot be given for both 342 and 340) (3-0)

**SOCI 343 (1½) CANADIAN DEMOGRAPHY**

Study of the growth, distribution and movement of the Canadian population with special emphasis upon the social causes of changes in patterns of fertility, mortality and migration and the social implications of these changes for Canadian society. (Note: Credit cannot be given for both 343 and 340) (3-0)

**SOCI 350 (3) SOCIAL WELFARE AS A SOCIAL INSTITUTION**

The historical development of social welfare as a social institution; the organizations of welfare services and the functions they perform in modern society; the relation of social welfare to other institutions. (3-0)

**SOCI 355 (1½) THE CORPORATION AND SOCIETY**

The corporation as a basic institution in modern Western societies; its development in Canada and elsewhere; its impact on other institutions, including the family, education, the state and social class. (3-0)

**SOCI 365 (1½) SOCIOLOGY OF LEISURE**

Conceptual problems in the identification of leisure. The production, consumption and distribution of leisure. The emergence of leisure defined lifestyles. The study of selected leisure activities. (3-0)

**SOCI 371 (1½) INTRODUCTION TO SOCIAL STATISTICS**

The logic and interpretation of statistical concepts and techniques in the Social Sciences. Specific topics include measurements, distributions, cross tabular analysis, bivariate correlation and regression, sampling, elementary probability and statistical inference. (Course restricted to students in a sociology program, or majoring in Nursing or Leisure Studies, or to others having permission of the instructor.) (NOTE: Students must register for a scheduled laboratory time.) (3-1)

**SOCI 375 (3) ADVANCED METHODS OF SOCIOLOGICAL RESEARCH**

This course is a continuation of 211. Students will become familiar with basic issues in the philosophy of science and ways of knowing, as well as various strategies involved in research design, sampling, and measurement. (A major research project may be required) (Prerequisite: 211, or permission of the instructor) (3-0)

**SOCI 381 (1½) SEX ROLES**

An examination of the social import of sex roles in contemporary society. Includes evaluation of evidence of sex differences (biological, psychological and social); definitions of masculinity and femininity; sex role socialization; implication of sex roles for achievement in education, income, and occupations; and an analysis of the causes and consequences of sex role change. (3-0)

**SOCI 385 (1½) SOCIOLOGY OF AGING**

A survey of sociological approaches to aging, including topics such as: cultural definitions of age; demographic trends and consequences; methodological problems in the study of aging; age stratification; retirement; death and dying. (3-0)

**SOCI 390 (1½) SELECTED PROBLEMS IN SOCIOLOGY**

Presentation of current interests of various faculty members. Students interested in this course should inquire at Registration when the course is to be offered and what the substantive presentation will involve. (Students may enroll in this course in different areas for a maximum of 3 units) (3-0)

**SOCI 395 (1½) SPECIAL TOPICS IN CANADIAN SOCIETY**

Detailed study of one or more limited aspects of Canadian society. Examples are sociological aspects of regionalism; recent social changes in Quebec; the position of original peoples; the changing status of women; protest movements; social structure and social policy. (3-0)

**SOCI 401 (1½) SOCIOLOGY OF LAW**

The interrelationships of law and other social institutions, socio-economic origins and class interests of legal functionaries, and law as social conflict are analyzed in Canadian and cross cultural contexts. (3-0)

**SOCI 402 (formerly part of 300) (1½) CURRENT ISSUES IN SOCIOLOGICAL THEORY**

Detailed study of particular recent developments or ongoing issues in sociological theory. Topics may vary from year to year to include either particular theoretical orientations — e.g., Marxism, exchange theory, symbolic interactionism — or particular theoretical issues in the discipline — e.g., micro-macro linkages, theory "groups" and boundaries, theoretical model building. (Not open to students who have completed 300) (Prerequisite: 302 or permission of the instructor.)

**SOCI 418 (ANTH 418) (1½) SOCIAL CHANGE**

General history of cultural evolution and social change. The impact of complex cultures upon the native peoples of Africa, Asia, the Pacific and the Americas. (Prerequisite: 100, and ANTH 100A and/or 100B or 200 or permission of the instructor) (3-0)

**SOCI 419 (ANTH 419) (1½) MODERNIZATION AND DEVELOPMENT**

An examination of selected theories and research on development, underdevelopment, and dependency in the modern world; examples will be taken from various parts of the world, including Canada. (3-0)

**SOCI 441 (1½) URBAN SOCIOLOGY**

This course focuses on the sociological analysis of the city, with specific emphasis on the social aspects of urbanization, urbanism and urban problems. Topical areas include the examination of various urban institutions as well as selected aspects of the urban environment which are seen as important concomitants of urban problems. These include the supposed effects of congestion, housing patterns, social class differentials and their relationship to various problems such as crime, welfare, alcoholism, problems of the aged and a variety of other concerns. (3-0)

**SOCI 445 (1½) SOCIOLOGY OF HEALTH AND MEDICINE**

Seminar in the social implications of illness, the health professions, systems of health care, epidemiology. (3-0)

**SOCI 471 (formerly 372) (1½) ADVANCED SOCIAL STATISTICS**

Techniques of multivariate analysis emphasizing topics in multiple regression. Laboratories will include analysis of data using SPSS. (Not open to students with credit in 370) (*Prerequisite:* 371, or permission of instructor) (3-1)

**SOCI 485 (PSYC 439) (1½) SEMINAR IN GERONTOLOGY**

Offered in collaboration with the Department of Psychology; a course on the social and psychological aspects of gerontology; faculty members will present seminars on current research interests, and students will present seminars drawn from the following list of topics: physiological and neurological aspects of aging; cognitive functioning; personality; sexuality; work, retirement, and leisure; psychopathological aspects of aging; death and dying; widowhood; demographic trends and consequences, aging and the family; age stereotypes and discrimination; methodological and

statistical problems in the study of aging and the aged. (*Prerequisite:* 385 or PSYC 339, or permission of instructor. Enrollment limited to 20 students) (3-0)

**SOCI 490 (1-3) DIRECTED STUDIES**

This course may be submitted for an elective course in Sociology in the Fourth Year of the Honours Program with the permission of the Department.

**SOCI 499 (3) HONOURS SEMINAR AND GRADUATING ESSAY**

Honours students are permitted to audit this seminar in the Third Year and are required to take the seminar for credit in the Fourth Year.

**GRADUATE COURSES**

Not all the following courses will be offered in a particular year. Students should consult the Department to determine the courses which will be offered this year.

**SOCI 500 (1½) PROBLEMS IN SOCIOLOGICAL THEORY****SOCI 505 (1½) CURRENT PROBLEMS AND RESEARCH IN SOCIOLOGY****SOCI 510 (1½) QUANTITATIVE METHODS****SOCI 511 (1½) RESEARCH DESIGN****SOCI 530 (1½ or 3) STUDIES IN SOCIAL STRUCTURE**

(May be repeated once for a total of 3 units)

**SOCI 535 (1½ or 3) STUDIES IN SOCIAL PROCESSES**

(May be repeated once for a total of 3 units)

**SOCI 590 (1½ or 3) DIRECTED STUDIES**

(May be repeated once for a total of 3 units)

**SOCI 599 (3) THESIS**

(Grading: INP, COM, N or F)

**WOMEN'S STUDIES**

Jennifer Waelti-Walters, B.A. (London), L. ès L. (Lille), Ph.D. (London), Professor (French)

Christine St. Peter, B.A. (Tor.), M.A. (York), Ph.D. (Tor.), Assistant Professor

**Women's Studies Program Committee:**

Evelyn M. Coble, B.A. (Brigham Young), M.A., Ph.D. (Brit. Col.), Assistant Professor, English. Term expires July 1, 1989

Richard King, B.A., M.A. (Cantab.), Ph.D. (Brit. Col.), Assistant Professor, Pacific & Asian Studies. Term expires July 1, 1988

Constance M. Rooke, B.A. (Smith Coll.), M.A. (Tulane), Ph.D. (N. Carolina), Associate Professor, English. Term expires July 1, 1989

E. Patricia Tsurumi, B.A. (Brit. Col.), A.M., Ph.D. (Harvard), Associate Professor, History. Term expires July 1, 1988

Although Major and Honours programs in Women's Studies are not offered, Major and Honours students in other departments may obtain a Minor in Women's Studies by completing the following requirements for the General program. (Also see Minor, p.31.)

**GENERAL PROGRAM**

Two of 200A, 200B, or SOCI 316 (by approval);

300A, 300B;

400A, 400B

3 units, chosen from the following list:

CHIN 306 (1½) The Literature of the People's Republic of China (1949 to the Present)

CLAS 335 (1½) Women and the Family in Classical Antiquity

ENGL 399 (1½) Women and Literature

FREN 488F (1½) Women Writers

HIST 437 (PACI 437) (1½) Japanese Women from the Sixth to the Twentieth Century

SOCI 305 (3) Sociology of Families and Households

SOCI 316 (1½) Social Movements (if not taken above)

SOCI 381 (1½) Sex Roles

or women's studies topics offered from time to time in various departments, to be approved in each case by the Women's Studies director. In this regard attention is drawn to: HA 262, HIST 358, 365A, 365B, 380, 438, POLI 433, SW 460, WS 490.

**NOTES:**

1. If any of the above upper level courses in other disciplines form part of a student's Major, Honours or General program in another department, they cannot also be used to fulfill the Women's Studies requirements.
2. Prerequisites for the upper level electives listed above are found under the departments offering the courses.

The Division of University Extension offers nondegree courses on a variety of themes within Women's Studies. For more information call University Extension, Women's Studies Program Coordinator, local 8451.

**WS 200A (1½) WOMEN IN SOCIETY: PAST AND PRESENT**

This is an interdisciplinary and cross cultural course about women and their roles in society. Using an African novel as starting point, the course raises a number of feminist issues. Historical, anthropological, biological, and philosophical sources will be examined as appropriate. (*Prerequisite:* Second year standing or permission of the instructor)

C. St. Peter

F(3-0)

**WS 200 B (1½) WOMEN IN SOCIETY: PRESENT AND FUTURE**

In this interdisciplinary and cross cultural course, a North American utopian novel will provide the basis for analysis of contemporary women's experiences and of theoretical models for change. Some assumptions and research models that feminist scholarship brings to the study of psychology, political science, linguistics, sociology, and education will be examined. (*Prerequisite:* Second year standing or permission of the instructor)

C. St. Peter S(3-0)

**WS 300A (1½) CLASSIC FEMINIST TEXTS: I**

An interdisciplinary and multicultural approach to the issues of justice, work and power as discussed by major feminist writers through the ages and across the world. (*Prerequisite:* 200A or 200B, or permission of the instructor)

J. Waelti-Walters F(3-0)

**WS 300B (1½) CLASSIC FEMINIST TEXTS: II**

An interdisciplinary and multicultural approach to the questions of lan-

guage, body, and spirit as presented in major feminist works. (*Prerequisite:* 300A or permission of the instructor)

J. Waelti-Walters S(3-0)

**WS 400A (1½) THEORY AND RESEARCH METHODS**

A study of feminist theories and research methods in a variety of fields. This course is preparatory for 400B. (*Prerequisite:* 300A and B)

C. St. Peter F(3-0)

**WS 400B (1½) SEMINAR ON RESEARCH PROBLEMS**

Students will meet weekly to discuss research problems. Faculty involved in similar work will be invited to participate. (*Prerequisite:* 400A)

C. St. Peter S(3-0)

**WS 490 (1½ or 3) DIRECTED STUDIES**

Supervised study in some area of Women's Studies to be determined by the student and the instructor; written assignments will be required. (May be taken more than once to a maximum of 6 units) (3-0)

# FACULTY OF EDUCATION

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## FACULTY AND OTHER OFFICERS

- Robert H. Fowler, B.A., M.A. (Queen's), Ph.D. (Duke), Dean of the Faculty
- Beverly A. Timmons, B.A. (Chico St. Coll.), M.S., D.Ed. (Ore.), Associate Dean
- Geoffrey Hodder, B.Ed., M.A., (U. of Vic.), Assistant Dean
- R. Anne McLaughlin, B. Com. (Brit. Col.), M.S. (Ore.), Director of Academic Advising
- H. David Turkington, B.S., M.S., Ed.D. (Wash. St.), Coordinator of Education Extension
- Eugene D. Deen, B.Sc. (U. of Vic.), Programmer
- Elisabeth D. Haythorne, Advising Assistant
- Diana F. McBratney, C.D., Advising Officer

## DEPARTMENT OF ART AND MUSIC EDUCATION

- R. Dale McIntosh, A.R.C.T. (Tor.), B.Ed. (Alta.), M.Ed. (Sask.), M.Mus. (Alta.), Ph.D. (Wash.), Associate Professor and Chairman of the Department
- Franklin E. Churchley, A.R.C.T., L.R.C.T. (Royal Cons. Music), B.Mus. (Tor.), M.A., Ed.D. (Columbia), Professor
- Geoffrey S. Hodder, B.Ed., M.A. (U. of Vic.), Associate Professor
- Margaret M. Travis, M.Sc., D.Ed. (Ore.), Associate Professor
- William M. Zuk, B.Ed., B.A., M.Ed. (Alta.), Ph.D. (Ore.), Associate Professor
- Laurie R. Baxter, B.A., M.Ed. (Western Wash. State), Ph.D., (Ohio State Univ.), Assistant Professor
- Noel T. Gantly, B.A., M.Ed. (Ottawa), Ed.D. (B.Y.U.), Assistant Professor
- George Steggle, M.A. (Brit. Col.), N.D.D., A.T.C. (London), Assistant Professor
- Betty A. Hanley, B.A. (W. Ont.), M.Mus. (Wayne State), Ph.D. (Minnesota), Assistant Professor

## DEPARTMENT OF COMMUNICATION AND SOCIAL FOUNDATIONS

- Peter O. Evans, B.Ed., M.Ed., Ph.D. (Alta.), Professor and Chairman of the Department
- Ted T. Aoki, B.Comm. (Brit. Col.), B.Ed., M.Ed. (Alta.), Ph.D. (Ore.), Adjunct Professor (1987-89)
- W. John Harker, B.A. (Brit. Col.-Vic. Coll.), M.A. (Wash.), Ed.D. (Brit. Col.), Professor
- Christopher E. Hodgkinson, B.Sc. Econ. (London), M.Ed., Ed.D. (Brit. Col.), Professor

- Terry D. Johnson, B.Ed., M.A., Ed.D. (Brit. Col.), Professor
- Norma I. Mickelson, B.Ed. (Brit. Col.-Vic. Coll.), M.A. (U. of Vic.), Ph.D. (Wash.), Professor
- Lloyd O. Ollila, B.S., M.A., Ph.D. (Minn.), Professor
- Arthur V. Olson, B.S. (Mass. St. Coll.), M.S. (Mass.), Ed.D. (Boston), Professor
- Laurence E. Devlin, B.Ed. (U. of Vic.), M.A., Ph.D. (Chicago), Adjunct Associate Professor (1986-88)
- Margie I. Mayfield, B.A. (Macalester Coll.), M.A., Ph.D. (Minn.), Associate Professor
- Peter J. Murphy, B.A. (Winn.), B.Ed., M.Ed. (Man.), Ph.D. (Alta.), Associate Professor
- Antoinette A. Oberg, B.A., M.A. (Wash.), Ph.D. (Alta.), Associate Professor
- Geoffrey D. Potter, B.A., M.A. (Sir George Williams), Ph.D. (Sheffield), Associate Professor
- Vernon J. Storey, B.Ed., M.Ed., Ed.D. (Brit. Col.), Associate Professor
- D. Gordon Thompson, B.Sc., M.A. (Man.), Ph.D. (Wisc.), Adjunct Associate Professor (1987-89)
- Sheilah M. Allen, B.A., M.A., Ed.D. (Brit. Col.), Assistant Professor
- Robert J. Anthony, B.A., M.A. (Man.), Ph.D. (Tor.), Assistant Professor
- Thomas Fleming, B.A., M.A. (U. of Vic.), Ph.D. (Ore.), Assistant Professor
- Donald E. Hamilton, B.A. (Mt. Allison), M.S.L. (W. Mich.), Adjunct Assistant Professor (1986-88)
- Yvonne M. Martin-Newcombe, B.A., Dip.Ed. (W. Indies), M.A., Ph.D. (McGill), Assistant Professor
- Alison Preece, B.A. (Brit. Col.), M.A., Ph.D. (U. of Vic.), Assistant Professor
- Janet Arnold, B.A., M.Ed. (U. of Vic.), Visiting Lecturer (1987-88)
- Ethne Ann Erskine, B.A. (S. Africa), M.Ed. (Gonzaga), Visiting Lecturer (1987-88)

## SCHOOL OF PHYSICAL EDUCATION

- David Docherty, B.S., M.S., Ph.D. (Ore.), Professor and Director of the School
- Martin L. Collis, Dip. P.E. (Loughborough), M.S. (Idaho), Ph.D. (Stanford), Professor
- Gerald A. Carr, Dip. P.E. (Loughborough), B.A., B.S., M.S. (Calif., L.A.), Ph.D. (Stellenbosch), Professor
- Bruce L. Howe, Dip. Ed. (Dunedin Teachers' Coll.), B.S., M.S., Ph.D. (Ore.), Professor
- John J. Jackson, Dip. P.E. (Carnegie Coll.), M.Sc. (Ottawa), Ph.D. (Alta.), Professor
- Maurice L. Van Vliet, O.C., B.S., M.S. (Ore.), Ed.D. (Calif.-L.A.), LL.D. (W. Ont., Windsor, Alta., Dal., (Queen's), Hon.D.Ed. (U. of Vic.), Honorary Professor (1986-88)
- Howard A. Wenger, B.P.E., M.P.E. (Brit. Col.), Ph.D. (Alta.), Professor
- Robert D. Bell, B.A. (P.E.) (Sask.), M.A., Ph.D. (Ore.), Associate Professor
- H. David Turkington, B.S., M.S. (Wash. St.), Dip. P.E. (Oslo), Ed.D. (Wash. St.), Associate Professor
- Richard D.H. Backus, B.Sc., M.D. (Alta.), Adjunct Assistant Professor (1987-89)
- Frederick I. Bell, B.A., B.Ed. (Sask.), M.Ed. (Alta.), Ed.D. (N. Carolina), Assistant Professor
- Maureen C. Hibberson, B.P.E. (Brit. Col.), M.A. (Ore.), Assistant Professor
- R. Anne McLaughlin, B.Com. (Brit. Col.), M.S. (Ore.), Assistant Professor
- Douglas R. Nichols, B.A. (Hope Coll.), M.S. (Ore.), M.A. (Mich. St.), Ph.D. (Ore.), Assistant Professor
- Leslie H. Peake, Dip. in P.E. (St. Paul's Coll., Bristol), M.Sc. (Springfield Coll.), Assistant Professor
- J. Norgrove Penny, B.Sc., M.D. (Alta.), F.R.C.S. (C.), Adjunct Assistant Professor (1987-89)
- Geraldine H. Van Gyn, B.A. (W. Ont.), M.Sc. Ph.D. (Alta.), Assistant Professor
- Dona Tomlin, B.Sc. (U. of Vic.), Senior Academic Assistant

## DEPARTMENT OF PSYCHOLOGICAL FOUNDATIONS IN EDUCATION

- Brian Harvey, B.A. (Brandon), M.A., Ph.D. (Ohio St.), Associate Professor and Chairman of the Department
- Donald W. Knowles, B.A., B.Ed., M.Ed., Ph.D. (Alta.), Professor
- R. Vance Peavy, B.A., M.A. (Colo. St. Coll.), D.Ed. (Ore.), Professor
- Daniel G. Bachor, B.Ed., M.Sc. (Calgary), Ph.D. (Tor.), Associate Professor
- Rey A. Carr, B.A. (Calif., L.A.), M.A. (San Fran. St.), Ph.D. (Calif., Berkeley), Associate Professor
- Betty Ann Collis, B.A. (Mich.), M.A. (Stanford), Ph.D. (U. of Vic.), Associate Professor
- M. Honoré France, B.Sc. (Tennessee), M.Ed., Ed.D. (Mass.), Associate Professor
- Walter Muir, B.Ed., M.Ed., Ph.D. (Alta.), Associate Professor
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- Ronald E. Tinney, B.A. (Brit. Col.), Ph.D. (Minn.), Associate Professor
- Max R. Uhlemann, B.S., M.S., Ph.D. (Colorado St.), Associate Professor
- John O. Anderson, B.Sc., B.Ed., M.Ed. (Man.), Ph.D. (Alta.), Assistant Professor
- Geoffrey G. Hett, B.Ed. (U. of Vic.), M.S., Ph.D. (Ore.), Assistant Professor
- Gerald R. Guest, B.A. (Brit. Col.), M.A., Ph.D. (U. of Vic.), Adjunct Assistant Professor (1987-89)
- Jennifer L. Hill, B.A. (New Br.), M.Ed. (Boston Coll.), Ed.D. (Northern Colorado), Assistant Professor
- Joyalle Bunyan-Maynard, B.Ed. (Brit. Col.), M.Ed. (U. of Vic.), Visiting Lecturer (1987-88)
- Ethne Ann Erskine, B.A. (S. Africa), M.Ed. (Gonzaga), Visiting Lecturer (1987-88)
- Alana J. Samson, B.A., M.A. (U. of Vic.), Visiting Lecturer (1987-88)
- Greg Saunders, B.A., M.A. (U. of Vic.), Visiting Lecturer (1987-88)

## DEPARTMENT OF SOCIAL AND NATURAL SCIENCES

- Larry D. Yore, B.S., M.A., Ph.D. (Minn.), Professor and Chairman of the Department
- Werner W. Liedtke, B.Ed., M.Ed., Ph.D. (Alta.), Professor
- James H. Vance, B.Sc. (Alta.), M.A. (Wash.), Ph.D. (Alta.), Professor
- Irvin K. Burbank, B.Ed. (Alta), M.S., Ed.D. (Utah St.), Associate Professor
- William K. Cross, B.Ed. (Brit. Col.), M.A., Ed.D. (Wash. St.), Associate Professor
- Robert H. Fowler, B.A., M.A. (Queen's), Ph.D. (Duke), Associate Professor
- John J. Sheppy, B.A., M.Ed. (Brit. Col.), Associate Professor
- Paul F. Thomas, B.A., B.Sc. (Tor.), M.A. (Waterloo), M.Ed., Ph.D. (Tor.), Associate Professor
- Richard L. Williams, B.S. (St. Cloud St. Coll.), M.S. (Cornell), Ph.D. (Wash. St.), Associate Professor
- Pierce Farragher, M.Ed. (Tor.), Ph.D. (Penn. State), Assistant Professor
- Gloria J. Snively, B.Sc. (Portland State), M.A. (S. Fraser), Ph.D. (Brit. Col.), Assistant Professor

## DIVISION OF PROFESSIONAL STUDIES

- William K. Cross, B.Ed. (Brit. Col.), M.A., Ed.D. (Wash. St.), Director
- Lillian Strachan, B.Ed., M.A. (U. of Vic.), Ed.D. (Wash.), Visiting Lecturer (1987-88)
- Kenneth R. Frey, B.A. (Sheffield), M.Ed. (West. Wash. St. Coll.), Coordinator of School Experiences (Secondary)
- Helen E. Bandy, B.A. (Brit. Col.), M.Ed. (U. of Vic.), Coordinator of School Experiences (Elementary)

## PROGRAMS OFFERED BY THE FACULTY

### UNDERGRADUATE PROGRAMS

#### 1. BACHELOR OF EDUCATION (ELEMENTARY CURRICULUM) DEGREE

..... page 144

This is a five year program in elementary teacher preparation leading to a degree in Education and to teacher certification. The basic preparation is for classroom generalists, although some specialization is included. Students may begin the program at a regional college and transfer to the University for Year Two or Year Three. A Standard Certificate is available after Year Four on the Regular program; the degree and a Professional Certificate are granted after Year Five. The Physical Education Specialist program requires completion of the degree for initial certification which will be the Professional Certificate.

#### 2. BACHELOR OF EDUCATION (SECONDARY CURRICULUM) DEGREE

..... page 150

This is a five year program leading to a degree in Education and to teacher certification. The degree requires specialization in one or two teaching subject areas normally taught in the public secondary schools of British Columbia. On completion of the degree the student is eligible for the Professional Certificate.

#### 3. BACHELOR OF EDUCATION DEGREE

##### a. Elementary

..... page 148

This is a two year post degree professional program for university graduates who wish to become elementary school classroom teachers. Completion of the program qualifies candidates for teacher certification and a degree in Education.

##### b. Secondary

..... page 154

This is a two year post degree professional program for university graduates who wish to become secondary school teachers. Completion of the first year qualifies candidates for a teaching certificate. Those who complete the second year will qualify for a degree in Education.

#### 4. BACHELOR OF ARTS DEGREE

##### a. Major in Human Performance

..... page 156

This four year program offers a liberal arts and/or social science perspective in the study of fitness, sport, and physically active life styles.

##### b. Major in Leisure Studies-Cooperative Education

..... page 156

This four year program prepares students to enter the field of recreational administration and provides preparation in the planning, implementation and supervision of programs in a wide range of recreational settings. The leisure studies program is available only on a cooperative model basis.

#### 5. BACHELOR OF SCIENCE DEGREE

##### a. Major in Human Performance

..... page 157

##### b. Major in Human Performance-Cooperative Education

..... page 157

This four year program offers a science perspective in the study of fitness, sport, and physical activity.

#### 6. DIPLOMA IN SCHOOL LIBRARIANSHIP

..... page 158

This is a 15 unit program (equivalent to one year) designed to prepare teachers to function as teacher librarians in either elementary or secondary schools.

#### 7. CERTIFICATE IN KÓDALY METHODOLOGY

..... page 158

This is a 9 unit summer based program designed to prepare teachers of music at the elementary level in the principles and practices of the Kó-daly methodology.

## GRADUATE PROGRAMS

Graduate degrees in Education are offered through the Faculty of Graduate Studies. General information about these degrees may be found on pages 211 and 221 of this Calendar.

Inquiries should be directed to the Dean of the Faculty of Graduate Studies, the Associate Dean of the Faculty of Education, or the Education Departmental Graduate Advisers. Students seeking teacher certification are referred to pages 148 and 154.

#### 1. MASTER OF EDUCATION DEGREE

..... page 221

#### 2. MASTER OF ARTS DEGREE

..... page 221

#### 3. DOCTOR OF PHILOSOPHY DEGREE

..... page 221

## ACADEMIC ADVICE

Students needing advice about any of the undergraduate courses or programs offered in the Faculty of Education (including the Post Degree Professional Programs) should consult the Education Advising Centre, Room A250, MacLaurin Building, or write to that office for information.

All undergraduate students registered in the Faculty are required to make a commitment to a particular program. The Education Advising Centre will prepare a Record of Degree Program for each student based

on current Faculty regulations. All previously completed work will be considered in relation to the student's choice of program and teaching areas. The Faculty reserves the right to review any program or course work that is ten or more years old. Additional work may be required if courses taken ten or more years ago are outdated.

All students are advised to confirm program requirements with the Advising Centre before registering in any session.

## ADMISSION TO THE FACULTY OF EDUCATION

Applicants for admission to the Faculty of Education must meet general University requirements described on pages 7-11, as well as general Faculty and specific program requirements.

The University of Victoria reserves the right to limit enrollment in the Faculty of Education and to refuse admission to the various programs of the Faculty. Such factors as available space and facilities, teaching positions available in the schools, academic qualifications, general suitability of the applicant for teaching, physical abilities, and English usage will be taken into account.

### GENERAL FACULTY ADMISSION

The general requirements for admission to any degree program offered in the Faculty of Education are:

1. at least 12 units of credit including 3 units of English (except students who have successfully completed ENGL 099 may be admitted with 1.5 units of English); and
2. a sessional grade point average of at least 3.00 on the most recent session and, if that session is less than 12 units, a grade point average of at least 3.00 on a cumulative total of the most recent 12 units; and
3. admission interview (see below).

Specific program admission requirements are given under the description of each program.

### INTERVIEW REQUIREMENT (Suspended 1988)

Those students seeking entry to the Faculty of Education for the first time and others who may be specifically referred, must be interviewed by personnel in the Faculty of Education for the purpose of judging suitability for the teaching profession. The interview program is scheduled for February through June. Appointments may be made by contacting the Education Advising Centre. Applicants whose place of residence makes it difficult to travel to Victoria for the interview should write to this office before the end of May to determine whether alternate arrangements may be made.

The professional judgement of those conducting the interviews will be deemed sufficient grounds for recommending the acceptance or rejection of an application. A candidate whose suitability for teaching is questioned by an interviewer will be referred to a Review Committee. Appeal procedures are available.

Teachers holding valid British Columbia teaching certificates or whose training and experience have been in Canada, U.S.A., U.K., Australia or New Zealand are exempt from the interview requirement.

Human Performance and Leisure Studies applicants are also exempt this requirement.

### QUOTA RESTRICTIONS

Admission to the Faculty of Education may be restricted by quotas. If quotas are placed on any year or program, not all qualified applicants will necessarily be accepted.

At the time of preparation of this Calendar (January 1988), maximum enrollments had been established for all professional years, the Elementary Program, the Physical Education teaching area and the degree programs in Human Performance and Leisure Studies.

Selection criteria have been approved by the Senate. Further details are available from the Faculty of Education Advising Centre and the School of Physical Education.

### ADMISSION TO PHYSICAL EDUCATION

Entry into all programs in the School of Physical Education is limited. The following programs are offered:

- Bachelor of Education degrees in elementary and secondary teaching
- Bachelor of Arts with a major in Human Performance

Bachelor of Arts with a major in Leisure Studies (Cooperative Education Program)

Bachelor of Science with a major in Human Performance  
Bachelor of Science with a major in Human Performance (Cooperative Education Program)

Initial admission to any program in the School of Physical Education may be granted only after completion of at least one year of university level studies acceptable to Physical Education and the Faculty of Education.

Students who wish to be considered for admission should comply with the following procedures:

1. Applicants with Secondary School Graduation
  - a. Register in the Faculty of Arts and Science and include:
    - PE 141 Introduction to Human Anatomy
    - PE 143 Introduction to Physical Education
    - PE 115 Fitness and Conditioning plus two other courses chosen from PE 104-132
  - b. Obtain an application form from the School of Physical Education after December 1.

Deadline for receipt of the application form in the School of Physical Education is FEBRUARY 28.

Detailed information about the Physical Education selection procedures is included with the Physical Education Application Form.

2. Applicants Transferring from Colleges/Universities  
College/University transfer students must present the equivalents of PE 141, 143, 115, and two activity courses in order to be considered for admission. Those who do not have these courses will be required to take a further year to complete these courses before applying for admission to Physical Education.

In addition to applying for admission to the University, students must obtain a Physical Education Application Form directly from the School of Physical Education, after December 1.

Deadline for receipt of the application form in the School of Physical Education is FEBRUARY 28.

Detailed information about the Physical Education selection procedures is included with the Physical Education Application Form.

In addition to completing all requirements for admission to the School of Physical Education, it should be noted that Faculty of Education regulations will apply to physical education students in all the programs except where specific programs have requirements that supersede those of the Faculty.

### LIMITATION OF CREDIT ON PROGRAMS

Because of the accelerating rate of change in subject matter, students may not always receive full credit for work taken ten or more years earlier. The Faculty Admissions and Adjudication Committee will determine what credit for work already completed will be applied to the candidate's chosen program.

Applicants for admission or acceptance on a degree program who have completed basic professional training may be granted up to 18 units of credit for that professional training towards the Bachelor of Education degree. This is granted at the discretion of the Faculty Admissions and Adjudication Committee.

Teachers whose professional training was not completed within ten years prior to their application to the Faculty must submit the following for the Committee's consideration:

1. resume of all teaching experience including dates, locations and grade levels, and indicating whether full time, part time, or substitution; and
2. copies of the most recent Superintendent's and/or Principal's Reports; and
3. letter(s) from Principal(s) attesting to teaching effectiveness in substitution roles if applicable; and
4. copy of Teacher's Card as issued by the Ministry of Education.

## ACADEMIC REGULATIONS

### STANDING

#### 1. Sessional Grade Point Average

The sessional grade point average is based only on courses which have a unit value. Courses bearing the grade COM are ignored. A sessional grade point average is found by multiplying the grade points for all the grades, and dividing the total grade points by the total number of units.

#### 2. Minimum Sessional Grade Point Average

Normally students in the Faculty of Education must obtain a grade point average of at least 3.00 on every session attended, otherwise they will be required to withdraw from the Faculty.

Post professional year students on Bachelor of Education degrees who do not obtain a sessional grade point average of at least 3.00 will be placed on academic probation. A student who is on academic probation and whose grade point average falls below 3.00 will be required to withdraw from the Faculty. A sessional grade point average of at least 3.00 is sufficient to remove a student from academic probation.

Human Performance and Leisure Studies Cooperative Education students who do not obtain a sessional grade point average of at least 3.50 will have their academic performance reviewed and may be placed on probation or required to withdraw.

Students who have been required to withdraw from the Faculty must appeal to the Faculty for readmission. Appeals should be submitted in writing to Records Services when applying for reregistration.

#### 3. Certification

For the purpose of determining eligibility for a teaching credential, successful completion of the professional year, or professional component in the case of the post degree programs, requires a grade point average of at least 3.00 on all courses taken that are applicable to the professional year or professional component. Students who do not obtain an average of at least 3.00 will not be reported as eligible for certification, and normally will be required to withdraw from the Faculty.

Teachers accepted on the elementary degree program must obtain a grade point average of at least 3.00 on at least 30 units of courses required to complete Years One to Three in order to establish eligibility for a teaching credential.

### WITHDRAWAL

The Faculty reserves the right at any time to require any student to withdraw from the Faculty where it believes on consideration of scholarship, professional fitness or professional conduct that the student is unsuited for the teaching profession. Unsatisfactory performance in professional seminars may be considered reason to require a student to withdraw from the Faculty.

### REGULATIONS CONCERNING PRACTICA

Students are referred to the University regulation on page 14. Students in professional years should be aware that they must complete requirements in the methods courses (700 level) before they will be allowed to take practica in either the fall or the spring.

### REPEAT PRACTICUM

Students who wish to repeat ED-P 797 or a secondary curriculum, instruction and practicum course must appeal to the Faculty Admissions and Adjudication Committee for permission.

## PROFESSIONAL PREPARATION

### SCHOOL EXPERIENCE, STUDENT TEACHING AND SEMINARS

School experience, student teaching and seminars form an integral part of the elementary and secondary programs. Requirements for these components of the Bachelor of Education elementary programs are outlined in the course descriptions of ED-P 197, 297 and 797 and for the secondary programs in the course descriptions of ED-P398, 498 and the secondary curriculum, instruction and practicum courses.

Students should be aware that all arrangements for school experience and student teaching are made through the School Experience Office

### CREDIT FOR PHYSICAL ACTIVITIES

Physical activity credit is limited as indicated below:

1. B.Ed degrees (elementary and secondary curricula)
  - (a) Physical Education teaching areas and specialist program — the number of units specified in the individual degrees for activities.
  - (b) Physical Education Concentration — 1½ units beyond the concentration.
  - (c) Non-Physical Education teaching areas — 3 units.
2. B.A. degree in Human Performance — 1½ units beyond the program requirements.
3. B.Sc. degree in Human Performance — 1½ units beyond the program requirements.
4. B.A. degree in Leisure Studies — 1½ units beyond the program requirements.

### GRADUATION REQUIREMENTS

Students should refer to the general statements on page 18 of this Calendar. In exceptional cases when programs do not include enough 300 or 400 level courses to satisfy 21 units in the degree, the Dean may approve the inclusion of courses at the 700 level. In addition, to be eligible for the Bachelor of Education degree, the candidate must normally have earned:

1. a passing grade in each of the courses comprising the degree program;
2. a grade point average of at least 3.00 on the work of the professional year;
3. a grade point average of at least 4.00 as specified on page 149 for the teaching areas on the secondary program;
4. a grade point average of at least 3.00 on all work taken subsequent to the professional year. Failed courses will be counted in computing the grade point average.

Graduation requirements for the Bachelor of Arts and Bachelor of Science degrees in Human Performance and Leisure Studies are shown under the descriptions for these programs on pages 156 and 157.

### GRADUATING AVERAGE

The graduating average of a student in the Faculty of Education shall be determined as the weighted average of the grade point values of the letter grades (other than COM) assigned to 300 and 400 level courses taken or challenged at this University and accepted for credit in the student's program in the Faculty. If the total unit value of all such courses does not exceed 30, all such courses will be included in the average. If the total exceeds 30, the average will be taken on a maximum of 30 units of such courses chosen so as to give the highest average, including, where necessary, the appropriate fraction of a course.

Students whose graduating averages are 3.50 or higher will be placed in one of the following classes on the basis of the graduating average:

1. First Class, an average of 6.50 or higher;
2. Second Class, an average from 3.50 to 6.49.

### CREDIT FOR STUDIES UNDERTAKEN AT OTHER INSTITUTIONS

Students who plan to undertake work at other institutions are required to seek prior approval from the Education Advising Centre if they wish such courses to be credited toward a degree at the University of Victoria.

Students are referred to the general University regulations on page 13.

which is located in the MacLaurin Building.

Professional Year students should note that all elementary and secondary programs commence with school experience. Orientation and placement for these activities will take place on Tuesday, September 6, 1988. In order to provide for sufficient school placements it is necessary for each professional year applicant to apply for school experience on the form provided in the application package or available from Records Services. The school experience form must be returned to Admission Services or Records Services together with other application forms by February 28.

All Education students undertaking school experience during the year

must be prepared to travel to any school in the three local school districts of Victoria, Sooke and Saanich. In order to do this, students should budget an additional \$100 to \$150 for transportation. Because of the heavy use of the three local school districts for school experience in the fall and winter and because it is considered important that students gain experience in nonmetropolitan areas, students should note that they will be required to undertake the final practicum in April-May in selected districts outside the Victoria, Sooke and Saanich districts. Extra expense will be involved and students should budget accordingly.

Students should note that School Districts may refuse placements and require students to withdraw from practica for failure to abide by the School Act or the British Columbia Teachers' Federation Code of Ethics.

**ELEMENTARY PROGRAMS**

**ED-P 197**

Normally students will be required to have a two week school experience following final examinations. Transfer students taking ED-P 197 and 297 in the same academic year must complete ten weekly half day experiences in the schools as well as meeting the ED-P 297 school experience requirements.

**ED-P 297**

Requires a two week school experience following final examinations.

**ED-P 797**

During professional year, students begin in September with an orientation in a local school. This is followed by Tuesday morning visits to the same school in preparation for a six week practicum later in the

fall. The final six week practicum from April to mid May will be undertaken in selected districts across the Province.

**SECONDARY PROGRAMS**

**ED-P 398**

A school experience of ten half days in local schools. A two week post session practicum may be required.

**ED-P 498**

Requires a two week school experience following final examinations.

Secondary curriculum, instruction and practicum courses —

The school experience component of the professional year commences in September with an orientation in a local school, followed by a six week practicum later in the Fall in the same school. The final six week practicum from April to mid May will be undertaken in selected districts across the Province.

**TEACHER CERTIFICATION**

The University does not issue teaching credentials or establish salary categories. On January 1, 1988, the responsibility for Teacher Certification transferred from the Ministry of Education to the College of Teachers. At the time of printing of this Calendar, information regarding certification was not available.

**BACHELOR OF EDUCATION (ELEMENTARY CURRICULUM)**

**ADMISSION REQUIREMENTS**

**1. Program Admission**

Initial admission to the elementary degree program may be granted only after completion of at least one year of university level studies acceptable to the Faculty of Education.

The requirements for admission to the regular elementary programs are:

- (a) admissibility to the university; and
- (b) at least 12 units of credit including 3 units of English (except students who have successfully completed English 099 may be admitted with 1½ units of English); and
- (c) a sessional grade point average of at least 3.00 on the most recent session and, if that session is less than 12 units, a grade point average of at least 3.00 on a cumulative total of the most recent 12 units; and
- (d) fulfillment of the interview requirement designated by the Faculty (see page 142 for details), unless waived by an ED-P 197 Seminar Leader; and
- (e) a science to the Grade 11 level or 3 units of an acceptable laboratory science if admission to this program will occur prior to the Professional year.

Teachers who wish to be accepted on this program with credit from other institutions including professional training, must first make application in the normal manner to University Admission Services as detailed on page 7 under Application for Admission, number 4. Those whose studies commenced more than ten years ago are also referred to the section entitled Limitation of Credit on Programs on page 142.

**2. Year Three Admission**

In order to be acceptable for registration in Year Three of this program students must have at least 3 units of English.

**3. Professional Year Admission**

The requirements for admission to the professional year of any of the elementary programs described below are:

- (a) Applications must be submitted to Records Services no later than February 28.
- (b) All courses specified for the preprofessional years of any program must be complete.
- (c) A grade point average of at least 3.00 (UVic C+) must have been obtained on
  - (i) the most recently completed session; and
  - (ii) the most recent two years of at least 30 units.

Normally all of the above requirements must be complete by June 30

of the year in which an applicant wishes to begin the professional year. Any applicants unable to meet this deadline who wish to complete requirements during the summer session must write to the Faculty Admissions and Adjudication Committee, c/o the Education Advising Centre, indicating why they believe their circumstances to be unusual, and requesting permission to be considered for admission on the basis of the results of their work during the summer period. The Committee will not accept work completed during the summer to raise a deficient grade point average, but may accept courses taken to meet requirements when the grade point average is already sufficient.

Applicants for the professional year should be aware that the Faculty of Education has maximum enrollment limits and that therefore all qualified applicants are not guaranteed acceptance. Applicants will be notified regarding their admissibility as soon as possible, but final acceptance may not be until late July.

September 6, 1988 is the *firm* deadline for registration in the professional year.

**PROGRAM**

**1. General**

The elementary program provides course work and practicum experience designed to produce a well qualified elementary school teacher. The program leads to teacher certification in British Columbia. Certification is required for employment in the public school system. On conclusion of the program, the degree Bachelor of Education (Elementary Curriculum) is granted by the University of Victoria.

The program is available in a number of formats. The format a student will follow is determined to a certain extent by the amount of credit the student has accumulated prior to acceptance. One variation is provided specifically for students who want to complete the first two years at a regional college. Two variations are provided for students in physical education. These formats are described in further detail below.

Basically the program calls for completion of specified academic courses (Arts and Science courses), professional courses (Education courses), and further work in a specialization. Specialization is available in a number of different teaching areas and concentrations, also described below. In many cases there is room in the program for electives (courses of the student's choice).

Required courses in Education	36½-42½ units
Required courses from other faculties	15-19½ units
Teaching area/concentration/electives	19½-25½ units

It should be noted that a minimum of 21 units in this degree must be upper level courses, i.e. courses numbered at the 300 or 400 level.

Particular attention should be paid to the grade point average requirements of the Faculty (see page 143). A grade point average of at least 3.00 must be obtained on all sessions attended in order to remain in the Faculty and to proceed from year to year.

Graduation requirements are found on pages 18 and 143.

**2. Professional Year**

In each of the formats below, one of the years is designated the professional year. This year is devoted mainly to a study of the curriculum and methods of instruction for the elementary school and to lengthy periods of practice teaching in school classrooms. Certification is possible on successful completion of this year.

The special admission requirements for this year (see Professional Year Admission above) should be noted.

Prior to entry students must decide whether they wish to teach primary, i.e. grades one to three, or intermediate, i.e. grades four to seven. Wherever possible, practica placements will be made according to the student's choice. Having taken practica at one level does not restrict one to teaching at that level.

The professional year is a coordinated program of courses that may be offered in two alternative patterns. The regular pattern begins in September and terminates mid May, and includes two six week periods of practica. The alternative internship pattern begins in July and terminates mid May, and includes a two month and a four month practicum.

The regular professional year will commence on Tuesday, September 6, 1988. All accepted students are required to attend a meeting in the MacLaurin Building where registration will be confirmed and seminars and school placements will be assigned. Students should be prepared to spend Wednesday, Thursday and Friday in local elementary schools.

Because of the classroom involvement off campus the scheduling of courses in this program is somewhat different from that of other courses. Deviations from the total professional year program, additions to or deferrals of courses, are not normally permitted. Permission of the Education Advising Centre is required for any exception.

**3. Transfer Program**

Qualified teachers who wish to transfer to this degree program should contact an Adviser in the Education Advising Centre for advice regarding course requirements. The program will be modified on the basis of previous training and experience. In cases where professional training was completed ten years ago or more, the Faculty of Education Admissions and Adjudication Committee will determine what credit may be applied to the degree program.

**4. Program Formats**

**(a) Regular Program**

This program is designed for students who plan to enter the Faculty in their second year, having completed first year in another faculty at UVic, in a college or in another university.

Those who wish may leave the program on completion of Year Four and seek employment as a teacher. The fifth year subsequently may be completed in a number of ways, e.g. through summer studies, extension, etc. Please note there is a time limit on acceptance of credit toward degrees.

**Year One**

ED-P 197	1½
ENGL 115/116 or 121/122	3
HIST 130 (or other Canadian history with permission of the Education Advising Centre)	3
MATH 160 A/B or other approved mathematics	3
PSYC 100	3
<sup>1</sup> Elective(s) from faculties other than Education	3

**Year Two**

<sup>2</sup> AE 101	2
<sup>3</sup> ED-E 145A or approved physics	1½
<sup>3</sup> ED-E 145B or approved earth science	1½
<sup>3</sup> ED-E 145C or approved biology	1½
ENGL 215	1½
<sup>4</sup> ME 104	2
PE 147	2
THEA 150	1½
Teaching area/concentration/electives	1½

**Year Three**

ED-B 331	1½
ED-B 430	1½
<sup>5</sup> ED-D 300	1½
ED-D 305	3
<sup>5</sup> ED-P 297	1½
Teaching area/concentration/electives	6

**Year Four: Professional Year**

ED-B 359	1
ED-B 748	1½
ED-B 749	1½
ED-D 337	1½
ED-D 400	1½
ED-E 743	2
ED-E 745	2
ED-E 746	1½
ED-P 797	3

Eligible for STANDARD CERTIFICATE

**Year Five**

ED-B 420, 423, 425, or 427	3
ED-B 450 (Primary)	
or ED-B 451 (Intermediate)	1½
Teaching area/concentration/electives	10½

Eligible for PROFESSIONAL CERTIFICATE

<b>Total units for degree</b>	77
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**Notes**

<sup>1</sup>Students who do not have a science to the grade 11 level must obtain credit for 3 units of an acceptable laboratory science in first year. It is recommended that this be taken in place of the elective which may be deferred to second year.

<sup>2</sup>Those who choose the Art Education teaching area should take AE 103 in lieu of 101.

<sup>3</sup>Students are expected to acquire background in each of the three areas of general science: biological, physical, and earth science.

Those who have completed, within the past ten years, all three of Biology 11, Physics 11, and Earth Science 11 may substitute an elective for the science requirement. Students with any two of these need complete only an approved 1½ units of ED-E 145 or other approved science. Those with any one of these or Chemistry 11 must complete an approved 3 units of science.

Students who have no senior secondary science (within the past ten years) are required to complete 4½ units of ED-E 145 or other approved science.

PE 141, 241A or 241B are acceptable to meet the biological science requirement.

<sup>4</sup>Those who choose the Music Education teaching area must take ME 106 (1½ units) in lieu of ME 104 (2 units). The extra ½ unit will then become an elective.

<sup>5</sup>ED-D 300 and ED-P 297 should be taken concurrently.

**(b) Regular Program with Physical Education Teaching Area**

Students who want physical education in the elementary program should consult an Adviser in the Education Advising Centre to determine whether they want the Regular Program with a concentration or a teaching area in physical education, or the Physical Education Specialist Program.

Acceptance in this program is limited (see page 142 under Admission to Physical Education).

Normally College students who wish acceptance in this program must plan to transfer to UVic for their second year.

**Year One (Arts and Science)**

ENGL 115/116 or 121/122	3
HIST 130 (or other Canadian history with permission of the Education Advising Centre)	3
MATH 160 A/B or other approved mathematics	3
<sup>1</sup> PE 115 plus two activities	1½
PE 141	1½
PE 143	1½
PE 147	2

**Year Two**

<sup>2</sup> ED-E 145A	1½
<sup>2</sup> ED-E 145B	1½
ED-P 197	1½
ENGL 215	1½
ME 104	2
PE 345	1½
Approved PE activities	1½
PSYC 100	3
THEA 150	1½

**Year Three**

AE 101	2
ED-B 331	1½
ED-B 430	1½
<sup>3</sup> ED-D 300	1½
ED-D 305	3
<sup>3</sup> ED-P 297	1½
PE 241B	1½
PE 446	1½
Approved PE activities	1½
	15½

**Year Four: Professional Year**

ED-B 359	1
ED-B 748	1½
ED-B 749	1½
ED-D 337	1½
ED-D 400	1½
ED-E 743	2
ED-E 745	2
ED-E 746	1½
ED-P 797	3
	15½

Eligible for STANDARD CERTIFICATE

**Year Five**

ED-B 420, 423, 425, or 427	3
ED-B 450 (Primary) or ED-B 451 (Intermediate)	1½
PE 344	1½
PE 346	1½
Approved PE activities	1
Electives from faculties other than Education	3
<sup>4</sup> Electives	3½
	15

Eligible for PROFESSIONAL CERTIFICATE

**Total units for degree** 77**Notes**<sup>1</sup>The following activity courses are required:

(a) 106, 107, 109, 110, 114, 115;

(b) 2½ units selected from 104-132 or 461 courses (only one of 126-132 may be chosen; students who do not possess a valid Bronze Medalion Certificate must take 105).

<sup>2</sup>See Note 3 (under Regular Program).<sup>3</sup>ED-D 300 and ED-P 297 should be taken concurrently.<sup>4</sup>Only 6 units of activity credit may be applied to this degree.**(c) Transitional Program**

This program is intended for students who plan to attend a regional college to complete the requirements of Years One and Two prior to coming to UVic to enter the Faculty of Education and the elementary program for their third year of studies. The course requirements of this program and of the Regular program are almost identical. The order in which the courses of the first three years are taken is different; the second level English requirement may be different; and the choice of teaching areas is more restricted. The Physical Education Teaching Area is not possible on a Transitional Program.

**Years One and Two**

ENGL 115/116 or 121/122	3
<sup>1</sup> ENGL 215 and THEA 150; or one of ENGL 200, 201, 202, 203	3
HIST 130	3
MATH 160 A/B or other approved mathematics	3
PSYC 100	3
<sup>2</sup> Approved Laboratory Science	3
Electives/concentration/teaching area	12
	30

**Year Three**

AE 101	2
ED-B 331	1½
ED-B 430	1½
ED-D 300	1½
ED-D 305	3
ED-P 197	1½
ED-P 297	1½
ME 104	2
PE 147	2
	16½

**Year Four: Professional Year**

ED-B 359	1
ED-B 748	1½
ED-B 749	1½
ED-D 337	1½
ED-D 400	1½
ED-E 743	2
ED-E 745	2
ED-E 746	1½
ED-P 797	3
	15½

Eligible for STANDARD CERTIFICATE

**Year Five**

ED-B 420, 423, 425, or 427	3
ED-B 450 (Primary) or ED-B 451 (Intermediate)	1½
Concentration/teaching area/electives	10½
	15

Eligible for PROFESSIONAL CERTIFICATE

**Total units for degree** 77**Notes**

<sup>1</sup>An English competency examination will be required prior to acceptance in Year Four if a student does not complete ENGL 215 or does not have a grade of at least C+ in ENGL 115. College courses given transfer credit as "ENGL 200 level" are not normally acceptable in lieu of ENGL 200, 201, 202, or 203.

<sup>2</sup>Students are expected to acquire background in each of the three areas of general science: biological, physical, and earth science.

Those who have completed, within the past ten years, all three of Biology 11, Physics 11, and Earth Science 11, may substitute an elective for the science requirement. Students with any two of these need complete only an approved 1½ units of ED-E 145 or other approved science. Those with any one of these or Chemistry 11 must complete an approved 3 units of science.

Transitional students who have no senior secondary science (within the past ten years) are required to complete 3 units of ED-E 145 or other approved science.

PE 141, 241A, or 241B are acceptable to meet the biological science requirement.

Students who are having difficulty in meeting this requirement should consult an Adviser in the Education Advising Centre.

**(d) Physical Education Specialist Program**

This program is designed to prepare students to teach physical education as a broadly based specialty and to give leadership and coordination to the overall physical education program in an elementary school.

Acceptance in this program is limited (see page 142 under Admission to Physical Education).

Normally College students who wish acceptance in this program must plan to transfer to UVic for their second year.

**Year One (Arts and Science)**

ENGL 115/116 or 121/122	3
HIST 130	3
MATH 160 A/B or other approved mathematics	3
<sup>1</sup> PE 115 plus two activities	1½
PE 141	1½
PE 143	1½
PE 147	2
	15½

**Year Two**

ED-P 197	1½
ENGL 215	1½
PE 345	1½
Approved PE activities	2
PSYC 100	3
THEA 150	1½
<sup>2</sup> Electives	4½
	15½

**Year Three**

ME 104	2
PE 241B	1½
PE 344	1½
PE 346	1½
PE 442	1½
PE 446	1½
Approved PE activities	1½
<sup>2</sup> Electives	4½
	15½

<b>Year Four</b>	
ED-B 331	1½
ED-B 420, 423, 425, or 427	3
ED-B 430	1½
ED-D 300	1½
ED-D 305	3
ED-P 297	1½
PE 443	1½
PE elective	1½
	15

<b>Year Five: Professional Year</b>	
ED-B 359	1
ED-B 748	1½
ED-B 749	1½
ED-D 337	1½
ED-D 400	1½
ED-E 743	2
ED-E 745	2
ED-E 746	1½
ED-P 797	3
	15½

Eligible for PROFESSIONAL CERTIFICATE

**Total units for degree** ..... 77

**Notes**

- <sup>1</sup>The following activity courses are required:  
(a) 106, 107, 109, 110, 114, 115;  
(b) 2 units selected from 104-132 or 461 courses (only one of 126-132 may be chosen; students who do not possess a valid Bronze Medalion Certificate must take 105).
- <sup>2</sup>At least 7½ units of the 9 units of electives on this program must be chosen from courses other than PE in consultation with the Elementary PE Adviser. A maximum of 1½ units of additional activity credit may be accepted as elective credit.

**5. Teaching Areas and Concentrations**

Every elementary program except (b) and (d) above (Regular with Physical Education Teaching Area and Physical Education Specialist Program) must include the requirement of one of the following teaching areas or concentrations. Students who do not enter the program for second year will likely find their choice somewhat limited and should consult an Adviser in the Education Advising Centre for further information.

**(a) Areas**

**ART EDUCATION**

AE 103	3
AE 200	1½
AE 201	1½
AE 205	1½
AE 208	1½
AE 315	1½
AE 316	1½
AE 317	1½
AE 401	1½

Approved courses chosen from the offerings in art education or HA 120 ..... 3 ..... 18

While AE 103 is strongly recommended, with permission of the Elementary Art Adviser AE 101 plus an additional course may be acceptable in lieu. A grade of B or higher is required on AE 103 (or 101).

Courses chosen to complete this area must be approved by the Adviser.

Not all art education courses can be offered each year. Students may complete courses in a sequence of their own choice since there are no prerequisites. Students should consult with the Adviser.

**DRAMA IN EDUCATION**

THEA 100	3
THEA 181	3
THEA 381	3
THEA 330	3
ED-B 341	3
ED-B 360	1½
	16½

**EARLY CHILDHOOD EDUCATION**

**(1) \* Primary Emphasis:**

ED-B 339	1½
ED-B 341	3
ED-B 342	1½
ED-B 440	1½
ED-D 306	1½
Approved options	6
	15

\* Primary emphasis students should also take ED-B 450.

**(2) Preschool/Kindergarten Emphasis: †**

AE 320	1½
ED-B 339*	1½
ED-B 440	1½
ED-B 441	1½
ED-B 448	1½
ED-D 306	1½
ED-E 447	1½
ME 302	1½
Approved options	3
	15

† These courses meet the course work requirements for certification as a supervisor by the Community Care Facilities Licensing Board.

\* Experienced teachers should consult with Early Childhood Education instructors to substitute an approved option.

A list of options is available from the Education Advising Centre.

One of ED-B 420, 423, 425 or 427 may be taken in Year Three in order to accommodate the above required courses in Year Five.

**FRENCH LANGUAGE EDUCATION**

FREN 180 (or 181/182)	3
FREN 290 (or 291/292)	3
FREN 302	3
FREN 320	1½
FREN 350	3
ED-B 390	3
	16½

**LANGUAGE ARTS**

ED-B 342	1½
ED-B 343A or B	1½
ED-B 349	3
ED-B 442	3
Approved options	6
	15

A list of options is available from the Education Advising Centre. It is strongly recommended that 6 units be chosen from a faculty other than Education.

One of ED-B 420, 423, 425 or 427 may be taken in Year Three in order to accommodate the required courses in Year Five.

**LEARNING ASSISTANCE**

ED-B 442	3
ED-D 316 or ED-D 417	1½ or 3
ED-D 405	3
ED-D 410 and/or ED-D 411	1½ or 3
ED-D 415	3
ED-E 484	1½
Approved option	1½ or 0
	15

A list of options is available from the Education Advising Centre.

One of ED-B 420, 423, 425 or 427 may be taken in Year Three in order to accommodate the required courses in Year Five.

**MATHEMATICS EDUCATION**

Approved mathematics*	7½
ED-E 343, 438A, 443, 444 and 484	7½
	15

\* A recommended sequence would be MATH 151, 102, 233A, 233C, CSC 110. Other approved courses are MATH 100, 101, 240, 362, 368A; CSC 115; STAT 250, 251.

**MATHEMATICS/SCIENCE**

MATH 151 and 102 or 100	3
Approved laboratory science	3
Approved mathematics	3
ED-E 345B and 438A	3
ED-E 343, 443, 444, 484	3
ED-E 345A, 445A, 445B or approved science	3
	18

Mathematics and science courses must be approved by the Elementary Mathematics and Science Advisers.

**MUSIC EDUCATION**

MUS 101A	1
MUS 101B	1
MUS 170	1
ME 106	1½
ME 207 or 309	1½
ME 208 or 308	1½
ME 300	1½
ME 306	3
Approved Music and/or Music Education	6
	18

Students wishing to enter this area must first seek acceptance through the Department of Art and Music Education. Satisfactory performance on a short musical aptitude test will also be required.

ME 104 may be acceptable for credit in lieu of ME 106 with permission of the Elementary Music Adviser.

**OUTDOOR EDUCATION**

ED-E 345A and 345B	3
ED-E 373	1½
PE 270	1½
Approved options	7½
	13½

Students will choose options from approved courses in education, biology, geography, anthropology, or history. Selection must include courses in two of these subject areas. A list of approved options is available from the Education Advising Centre.

**PHYSICAL EDUCATION**

Refer to page 142 for information regarding acceptance into this area.

PE 106, 107, 109, 110, 114, 115	3
*Any five 100 level activities or 461 courses	2½
PE 141	1½
PE 143	1½
PE 147	2
PE 241B	1½
PE 344	1½
PE 345	1½
PE 346	1½
PE 446	1½
	18

\*Only one of 126-132 may be chosen. Those who do not hold a valid Bronze Medallion Certificate must take 105.

**SCIENCE**

Laboratory science chosen from each of the following:

Physics or Chemistry (or with approval, ED-E 145A and B)	3
Biology or Microbiology (or with approval, ED-E 145C)	1½
Astronomy and/or Geology (GEOG 203A or	

203B with permission)	3
ED-E 345B	1½
ED-E 438A	1½
Approved Science or Science Education	1½
ED-E 445A and 445B	3
	15

**SOCIAL STUDIES**

GEOG 101A and 101B or approved higher level geography	3
HIST 130	3
ANTH 100A, 100B, 200A, 200B, 321, 339A, 339B, SOCI 100	3
ED-E 346, ED-E 438A, ED-E 446	4½
Social studies options	4½
	18

A list of approved options is available from the Education Advising Centre.

The area must include a minimum of 9 units of upper level courses.

**ACADEMIC SUBJECT AREAS**

With prior approval of the Education Advising Centre, 15 units of a General Program offered by a department of the Faculty of Arts and Science or a teaching area in Social Sciences may be acceptable as a teaching area.

**SOCIAL SCIENCES**

This 15 unit teaching area is intended for students who have specific career teaching aspirations which make it desirable to have a greater depth of social science knowledge. The 15 units may be any combination of courses from anthropology, linguistics or sociology.

**(b) Concentrations**

**Art Education:** Three of AE 200, 201, 205, 208; AE 401 (1½); 3 units approved by the Elementary Art Adviser.

**Music Education:** Two of ME 207, 208, 300, 309; ME 306; ME 400B or 400C or approved Kodaly course; ME elective to total 9 units.

In addition the student will have to satisfy the core requirement in music education which could be ME 106, or ME 104 with permission of the Elementary Music Adviser.

**Drama in Education:** THEA 181, 330, 381.

**Early Childhood Education:**

1. Primary Emphasis: ED-B 339, 341, 342, 440; ED-D 306.
2. Preschool/Kindergarten Emphasis: ED-B 339, 440, 441, 448; ED-D 306; ED-E 447.

**NOTE:** These concentrations do not meet requirements for certification as a supervisor by the Community Care Facilities Licensing Board.

**Language Arts:** ED-B 341, 342, 343A or 343B, 349.

**Educational Technology:** ED-B 360, 361, 362, 463; ED-D 338, 438.

**Physical Education:** PE 143, 345, 346, 446, and 3 units from PE 141, 241A, 241B, 341, 442, 445, three activities chosen from 105-125.

**Remedial Methodology:** ED-D 411A, 415; ED-B 442; ED-E 484.

**Interpersonal Skills:** ED-D 414, 417, 433, 434.

**Mathematics Education:** ED-E 343, 438A, two of 443, 444, 484, and 3 units chosen from C SC 110, MATH 151, 233A, STAT 250, 251, ED-D 338 or other electives approved by the Elementary Mathematics Adviser.

**Science Education:** ED-E 345B, 438A, 445A, 445B, and 3 units in science or science education approved by the Elementary Science Adviser.

**Social Studies:** ED-E 346, 438A, 446 and 4½ units of social studies electives approved by the Elementary Social Studies Adviser.

**BACHELOR OF EDUCATION  
POST DEGREE PROFESSIONAL PROGRAM – ELEMENTARY**

**ADMISSION**

**1. Admission to the Program and Year One**

The deadline for receipt of application forms is February 28. Applications will be considered from those who meet the following requirements:

- (a) successful Faculty interview; and
- (b) a degree from a recognized university; and
- (c) the equivalent of 60 units (i.e. four years) acceptable in content to the Faculty of Education Admissions and Adjudication Committee; and
- (d) a grade point average of at least 3.00 (Uvic C+) on the most recent session and on the most recent two years (30 units); and

(e) academic preparation which includes the following:

<sup>1</sup> Approved English	3 units
Canadian history	3 units
<sup>2</sup> Approved mathematics	3 units
Introductory psychology	3 units
<sup>3</sup> Approved laboratory science	3 units

<sup>1</sup>The Faculty requires students to demonstrate competency in written English. This may be satisfied by ENGL 115 with a grade of least C+ or 215 as part of the required 3 units, or by completion of the ENGL 115 equivalency examination in addition to the 3 units of approved English.

<sup>2</sup>The approved mathematics must normally have been completed within the past ten years.

<sup>3</sup>General science, biology, physics, chemistry, astronomy, geology, completed within the past ten years. Not required if both B.C. Biology 11 and Physics 11 have been completed within the past ten years or if applicant presents Bachelor of Music with Major in Music Education (Elementary) from the University of Victoria.

In addition, it is recommended that THEA 150 and ENGL 215 be included in the preparatory work.

Students of exceptional ability who do not meet the stated admission requirements may appeal to the Faculty Admissions and Adjudication Committee for consideration. "Exceptional" may be considered in terms of high grade point average, relevant work experience, or unique academic qualifications.

Normally, all of the above requirements must be complete by June 30 of the year of application. If applicants are unable to meet this deadline and wish to complete requirements during the summer session, they must contact the Education Advising Centre. Students may be given permission to make up course deficiencies during the summer but will not be given permission to raise low grade point averages.

Maximum enrollments have been established; therefore the Faculty cannot guarantee that all qualified candidates will be accepted. Accepted candidates will be notified as early as possible, but final acceptance may not be until late July.

## 2. Admission to Year Two

The deadline for receipt of application forms is February 28.

All course requirements of Year One must be complete with a grade point average of at least 3.00 by June 30 of the year of application. Requests for extension of this deadline will be considered by the Admissions and Adjudication Committee only if the applicant's current session grade point average is at least 3.00.

## PROGRAM

### 1. General

The elementary post degree professional program provides course work and practicum experience designed to produce a well qualified elementary school teacher. This program, which follows an acceptable undergraduate degree, leads to teacher certification. Certification is required for employment in the public school system. On conclusion of the program, the degree Bachelor of Education is granted by the University of Victoria.

The program is designed to be taken over two consecutive winter sessions. With permission of the Admissions and Adjudication Committee, the first year, or preprofessional year, may be extended and taken part time over more than one winter session. The courses required in this year are scheduled according to the normal University timetable and extend from the beginning of September to the normal examination period in the following April. In addition a two week practicum is required following examinations.

It should be noted that the Faculty of Education requires a grade point average of at least 3.00 on all sessions attempted. Any session in which the average falls below 3.00 will result in a requirement to withdraw from the program and the Faculty. Neither certification nor the degree will be awarded if the Year Two grade point average is less than 3.00.

Graduation requirements are found on pages 18 and 143.

### 2. Professional Year

The professional year is a coordinated program of courses devoted mainly to a study of the curriculum and methods of instruction for the elementary school and to lengthy periods of practice teaching in school classrooms. Because of the integration of the methods courses with the two practica, one in November/December and the other in April/May, it is required that this year be taken as a complete unit over one winter

session. Because the scheduling of courses in this year is not necessarily consistent with the University timetable, permission must be obtained from the Education Advising Centre to add any other course.

Prior to entry students must decide whether they wish to teach primary, i.e. grades one to three, or intermediate, i.e. grades four to seven. Wherever possible, practica placements will be made according to the student's choice. Having taken practica at one level does not restrict one to teaching at that level.

The professional year will commence on Tuesday, September 6, 1988. All accepted students are required to attend a meeting in the MacLaurin Building where registration will be confirmed and seminars and school placements will be assigned. Students should be prepared to spend Wednesday, Thursday and Friday in local elementary schools.

## 3. Program Formats

### (a) Regular Program

#### Year One: Preprofessional Year

AE 101	2	
ED-B 320 or other approved foundations	1½	
ED-B 331	1½	
ED-B 359	1	
ED-B 430	1½	
ED-D 300	1½	
ED-D 305	3	
ED-P 297	1½	
ME 104	2	
PE 147	2	17½

#### Year Two: Professional Year

*ED-B 450 or 451	1½	
ED-B 748	1½	
ED-B 749	1½	
ED-D 337	1½	
ED-D 400	1½	
ED-E 743	2	
ED-E 745	2	
ED-E 746	1½	
ED-P 797	3	16

**Total units for degree** 33½

Eligible for CERTIFICATION and DEGREE

\* Students enrolled in primary methods courses must take ED-B 450; those enrolled in intermediate methods courses must take ED-B 451.

### (b) Special Music Program

This program is only for students who hold a Bachelor of Music degree with Major in Music Education (Elementary) from the University of Victoria.

#### Year One: Professional Year

*ED-B 450 or 451	1½	
ED-B 748	1½	
ED-B 749	1½	
ED-D 305	3	
ED-D 337	1½	
ED-D 400	1½	
ED-E 743	2	
ED-P 797	3	15½

Eligible for CERTIFICATION

#### Year Two: Degree Completion

ED-B 342 and 343A or 343B, or 349	3	
ED-E 345A	1½	
ED-E 346	1½	
Approved AE	1½	
Approved PE	1½	
Electives	6	15

**Total units for degree** 30½

Eligible for DEGREE

\* Students enrolled in primary methods courses must take ED-B 450; those enrolled in intermediate methods courses must take ED-B 451.

## BACHELOR OF EDUCATION (SECONDARY CURRICULUM)

### ADMISSION REQUIREMENTS

#### 1. Program Admission

Initial admission to the secondary degree program may be granted only after completion of at least one year of university level studies acceptable to the Faculty of Education.

The requirements for admission to the secondary program are:

- admissibility to the university; and
- at least 12 units of credit including 3 units of English (except students who have successfully completed English 099 may be admitted with 1½ units of English); and
- a sessional grade point average of at least 3.00 on the most recent session and, if that session is less than 12 units, a grade point average of at least 3.00 on a cumulative total of the most recent 12 units; and
- fulfillment of the interview requirement designated by the Faculty (see page 142 for details).

Teachers who wish to be accepted on this program with credit from other institutions including professional training, must first make application in the normal manner to University Admission Services as detailed on page 7 under Application for Admission, number 4. Those whose studies commenced more than ten years ago are also referred to the section entitled Limitation of Credit on Programs on page 142.

#### 2. Year Three Admission

In order to be acceptable for registration in Year Three of this program, students must have at least 3 units of English.

#### 3. Professional Year Admission

The requirements for admission to the professional year of the secondary program are:

- Applications must be submitted to Records Services no later than February 28.
- All courses specified for the preprofessional years of the program, with the exception of electives, must be complete. In addition candidates presenting a second language must pass an oral competency examination.
- The candidate must have obtained either
  - a grade point average of at least 4.00 (UVic B-) on the upper level courses of the two teaching areas, including prerequisites and corequisites (**NOTE:** where fewer than 9 units of upper level work has been completed in any one area, the grade point average will be calculated on the upper level courses plus one or more of the 200 level courses in that area, to a total of 9 units); or
  - a grade point average of at least 4.00 (UVic B-) in the teaching area courses of Years Three and Four on any single expanded teaching area (**NOTE:** where fewer than 18 units of upper level work has been completed in the area in these years, the calculation will include sufficient courses from second year to total 18 units and if the area is physical education expanded, a grade point average of at least 4.00 is required on the 7½ units of other area work.)
- A grade point average of at least 3.00 (UVic C+) must have been obtained on
  - the most recently completed session; and
  - the most recent two years of at least 30 units.

Normally all of the above requirements must be complete by June 30 of the year in which an applicant wishes to begin the professional year. Any applicants unable to meet this deadline who wish to complete requirements during the summer session must write to the Faculty Admissions and Adjudication Committee, c/o the Education Advising Centre, indicating why they believe their circumstances to be unusual, and requesting permission to be considered for admission on the basis of the results of their work during the summer period. The Committee will not accept work completed during the summer to raise a deficient grade point average, but may accept courses taken to meet requirements when the grade point average is already sufficient.

Applicants for the professional year should be aware that the Faculty of Education has maximum enrollment limits and that therefore all qualified applicants are not guaranteed acceptance. Applicants will be notified regarding their admissibility as soon as possible, but final acceptance may not be until late July.

September 6, 1988 is the *firm* deadline for registration in the professional year.

### PROGRAM

This is a five year program leading to a Bachelor of Education (Secondary Curriculum) degree and professional teacher certification. The first four years are mainly concerned with academic preparation in two teaching subject areas or in a single expanded teaching subject area. The fifth year contains the professional preparation for teaching these subjects in the secondary schools. The teaching areas offered in this Faculty are described on pages 151 to 154. With approval of the Dean of the Faculty, students may be recommended for a degree with a teaching area regularly taught in the B.C. school system but outside of those offered by the Faculty.

The program ordinarily requires attendance at five winter sessions. However, depending on the choice of teaching area(s), students may transfer credit to this program from course work taken at B.C. regional colleges or elsewhere. It is suggested that advice be sought from the Education Advising Centre to ensure that courses taken will carry credit to the desired program. For those wishing a physical education teaching area, it is usually necessary to attend campus for Year Two. Details regarding acceptance in this area are found on page 142.

Year Five is the professional year in which students spend an extended time in the schools and take courses on campus that are directly related to their professional training. In order to gain admission to the professional year, it is necessary to meet the requirements as specified in the section above entitled Professional Year Admission. Normally all courses listed for this year are taken as a coordinated program during one full winter session. Because of the professional involvement off campus during this year, students are not normally permitted to take courses in addition to those specified. Any exceptions must have approval from the Education Advising Centre.

Students who complete this degree program with a grade point average of at least 3.00 on the professional year will be reported to the Provincial certification authority.

Teachers who are accepted on this program with credit from other institutions including professional training, should obtain a Record of Degree Program from the Education Advising Centre as soon as Admission Services has provided them with a Statement of Transfer Credit. This program will be modified on the basis of their previous training and experience. In cases where the professional training was completed more than 10 years ago, the Faculty Admissions and Adjudication Committee will determine what credit will be granted by Admission Services and what credit will be used toward the program.

Teachers accepted on this program will be eligible for Teacher Qualification Service Category 3 when 30 units in addition to the professional year have been completed, provided no more than 33 units remain to the degree. They will be eligible for Category 4 when 45 units including ED-D 337 have been completed in addition to the professional year, provided no more than 18 units remain to the degree.

Graduation requirements are shown on pages 18 and 143. The teaching area calculation used for graduation will be as for admission to the professional year, shown above.

### COURSE REQUIREMENTS

The minimum degree requirement is successful completion of the following:

Required Education courses	22½ units
Required Arts and Science and Fine Arts courses	9 units
Teaching area(s) courses (including prerequisites and corequisites)	37½ units
Electives	6 units
<b>TOTAL</b>	<b>75 units</b>

### PROGRAM BY YEARS

All students will register in a faculty other than Education in Year One. Advice may be obtained from the Education Advising Centre.

#### Year One:

ENGL 115/116 or 121/122	3
PSYC 100	3
Courses to meet degree requirements	9
	15

**Year Two:**

<sup>1</sup> ENGL 215	1½	
<sup>2</sup> THEA 150	1½	
Courses to meet degree requirements	12	15

**Year Three:**

ED-D 406	3	
ED-P 398	1½	
Courses to meet degree requirements	10½	15

**Year Four:**

ED-D 401	1½	
ED-P 498	1½	
Courses to meet degree requirements	12	15

**Year Five: Professional Year (Regular Option)**

<sup>3</sup> ED-B 343C	1½	
ED-B 359	1	
ED-B 420, 423, 425 or 427	3	
ED-B 430	1½	
ED-D 337	1½	
ED-P 792	½	
Approved Curriculum, Instruction and Practicum in Secondary School subject(s)	4½-6	
Approved Education elective (if only one area)	1½-0	15

<sup>1</sup>Students on the English teaching area will take this course as part of the area and will substitute an elective in the core.

<sup>2</sup>Students on the Dramatic Arts teaching area will substitute an elective.

<sup>3</sup>Prerequisite is waived.

**NOTE: ALTERNATIVE PROFESSIONAL YEARS MAY NOT BE OFFERED EVERY YEAR**

**Year Five: Alternative Professional Year (Saanich Internship Program)**

*July-August*

ED-B 343C	1½	
ED-B 430	1½	
ED-D 337	1½	
ED-P 777	1½	

*September-May*

Approved Curriculum, Instruction and Practicum in Secondary School subjects	4½-6	
ED-P 793	1½	

*May-June*

ED-B 420, 423, 425 or 427	3	15-16½
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**Year Five: Alternative Professional Year (Music) \***

ED-P 799A	9	
ED-A 762	3	
Approved Curriculum, Instruction and Practicum in other teaching area	3	15

\* restricted to applicants who have completed the music teaching area.

**Total Units for Degree** ..... 75 or 76½

Eligible for PROFESSIONAL CERTIFICATE

**TEACHING AREAS (SECONDARY)**

Students will choose either two teaching areas or one expanded teaching area from those described on the following pages.

The following are usual combinations of teaching areas taken by students on the Secondary regular program:

- any two of mathematics, chemistry, physics or biology;
- mathematics or biology in combination with physical education;
- any two of English, French, German, art, music, dramatic arts, geography, history, physical education, social studies, mathematics.

Any student wishing to take a combination of teaching areas not listed above should consult the Education Advising Centre.

Where two teaching areas are chosen, the minimum number of units

required in each area is 15. In addition to these 30 units a total of 7½ units are required, to be made up of corequisites and additional area courses.

Where one expanded area is chosen, 37½ units of area and corequisite work are required.

Exceptions to any of the following subject and course requirements may be permitted only with prior permission of the Education Advising Centre.

The six units normally reserved for electives may be used to strengthen a teaching area.

**ART**

Corequisite:

ENGL 200, 201, 202, 203, 250, or HA 120	3	3
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Area:

AE 103	3	
AE 200	1½	
AE 201	1½	
AE 315	1½	
AE 316	1½	
AE 401	3	

Approved courses chosen from:

AE 205, 208, 305, 306, 307, 308, 303 or 309, 304 or 310, 317, 318, 319	6	18
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AE 103 with a grade of B or higher is required for acceptance in this area. Students should attempt to obtain this course in Year 1.

Courses chosen to complete this area must be approved by the Secondary Art Adviser.

Up to 3 units of additional work may be required if a student's background is considered to be inadequate for teaching art in the public school system.

Not all art education courses can be offered each year. Students may complete courses in a sequence of their own choice since there are no prerequisites. Students should consult with the Adviser.

Upper level visual arts courses may be substituted in the program with the approval of the Adviser.

**ART (EXPANDED)**

Acceptance into the area is subject to approval of the Secondary Art Adviser.

Corequisite:

ENGL 200, 201, 202, 203, 250, or HA 120	3	3
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Area:

AE 103	3	
AE 200	1½	
AE 201	1½	
AE 315	1½	
AE 316	1½	
AE 401	3	
Approved Art Education	13½	
Approved upper level art or History in Art	9	34½

AE 103 with a grade of B or higher is required. Students should attempt to obtain this course in Year 1.

Courses chosen to complete this area must be approved by the Secondary Art Adviser.

Not all art education courses can be offered each year. Students may complete courses in a sequence of their own choice since there are no prerequisites. Students should consult with the Adviser.

Upper level visual arts courses may be substituted in the program with the approval of the Adviser.

**BIOLOGICAL SCIENCES**

Corequisites:

CHEM 100 or 101 or 140*	1½	
CHEM 102	1½	
CHEM 231	1½	
CHEM 232	1½	6

Area:

BIOL 150**	3	
BIOC 200	1½	
BIOL 200	1½	
Two of BIOL 203, 204, 206, 207	3	
BIOL 300 or 320	1½	

Approved courses from biology, microbiology, biochemistry, ED-B 373 ..... 4½ ..... 15

\* CHEM 140 has MATH 100 as a co- or prerequisite. Students who complete 140 with at least a B grade may replace CHEM 102 with an approved CHEM. Consult the Secondary Science Adviser.

\*\* Students excused BIOL 150 by the Biology Department (see page 39) will substitute 3 units of biology or microbiology.

One botany course must be included in the area.

Except where prior permission is obtained from the Education Advising Centre, additional area courses will be chosen by the student from those numbered 300 or higher.

### CHEMISTRY

Corequisites:  
 MATH 100 ..... 1½  
 MATH 101 ..... 1½ ..... 3

Area:  
 CHEM 100, 101 or 140 ..... 1½  
 CHEM 102 or 245 ..... 1½  
 CHEM 213 ..... 1½  
 CHEM 222 ..... 1½  
 CHEM 231 ..... 1½  
 CHEM 235 ..... 1½  
 CHEM 245 (if not completed above) ..... 1½ or 0  
 Approved chemistry courses\* ..... 4½ or 6 ..... 15

\* MATH 200 is prerequisite to some upper level courses.

Additional area courses must be approved by the Secondary Science Adviser.

### DRAMATIC ARTS

Corequisites:  
 ENGL 402, ED-B 371, or ENGL 403  
 and ED-B 360 ..... 3 ..... 3

Area:  
 THEA 100 ..... 3  
 THEA 105 ..... 3  
 THEA 181 ..... 3  
 THEA 330 ..... 3  
 THEA 382 ..... 3 ..... 15

Additional area courses will be chosen by the student from any Theatre offerings.

NOTE: An elective will be substituted for the core requirement of THEA 150.

### ENGLISH

Corequisites:  
 ED-B 350 ..... 3  
 LING 388 ..... 1½ ..... 4½

Area:  
 ED-B 371 ..... 3  
 ENGL 200 ..... 3  
 ENGL 215 ..... 1½  
 ENGL 400 ..... 1½  
 ENGL 437 ..... 3  
 ENGL 457; or one of 450 or 451, and  
 either 452 or 453 ..... 3 ..... 15

Courses in children's literature are not acceptable for credit in this area.

Additional area courses will be chosen by the student from those numbered 300 or higher. In selecting additional courses students are advised to develop a balanced program of modern poetry, fiction and drama in preparation for teaching current secondary school curricula.

### FRENCH

Area:  
 FREN 180 (or 181/182) ..... 3  
 FREN 285 (or 286/287) ..... 3  
 FREN 290 (or 291/292) ..... 3  
 FREN 302 ..... 3  
 FREN 320 ..... 1½  
 FREN 350 ..... 3 ..... 16½

Additional area courses will be chosen by the student from those numbered 390 or higher. FREN 402 is recommended.

Students should note that an oral examination in French is required before admission to the professional year. This exam must be completed to the satisfaction of the Faculty of Education, or admission to professional year will be denied.

### GENERAL SCIENCE (EXPANDED)

Corequisites:  
 MATH 100 and 101 ..... 3  
 MATH 200 ..... 1½ ..... 4½

Area:  
 ASTR 120 or 200A/B ..... 3  
 BIOL 150\* ..... 3  
 BIOL 203, 204, 206 or 207 ..... 1½  
 CHEM 100, 101 or 140 ..... 1½  
 CHEM 102 or 145 ..... 1½  
 CHEM 222 ..... 1½  
 CHEM 245 ..... 1½  
 Two of GEOL 100A, 100B, GEOG 203A,  
 203B ..... 3  
 PHYS 110 and 120\*\* ..... 3  
 PHYS 216 ..... 1½

Approved courses from one of biology and microbiology, or chemistry, or physics so that there are at least 9 units in one of these disciplines ..... 12 ..... 33

\* Students excused BIOL 150 by the Biology Department (see page 39) will substitute 3 units of approved courses.

\*\* Students required to take Physics 100 may include the credit as an area course.

Courses chosen to complete this area must be approved by the Secondary Science Adviser.

### GEOGRAPHY

Corequisites:  
 HIST 130 ..... 3  
 HIST 105, 240, 250, 252, 376, 392 ..... 3 ..... 6

Area:  
 GEOG 101A and 101B ..... 3  
 GEOG 361B ..... 1½  
 GEOG 201A, 201B, 203B, 205B ..... 3  
 GEOG 321, 322, 323, 341, 349 ..... 3  
 GEOG 343, 365, 463A, 463B, 465 ..... 4½ ..... 15

Except where prior permission is obtained from the Education Advising Centre, additional area courses will be chosen by the student from those numbered 300 or higher, with the exception of GEOG 330.

Students in this area may not choose Geography/Social Studies or Social Studies as their other area.

### GEOGRAPHY/SOCIAL STUDIES

Corequisite:  
 HIST 105, 130, 240 ..... 3 ..... 3

Area:  
 GEOG 101A and 101B ..... 3  
 GEOG 203A and 203B ..... 3  
 GEOG 361A and 361B ..... 3  
 GEOG 349 and 350A ..... 3  
 Approved courses (minimum 3 units upper level) in anthropology, classics, economics, history, law, pacific studies, political science, sociology ..... 9 ..... 21

GEOG 330 is not acceptable for credit in this area.

This is a 21 unit area for students wishing to take courses in geography and social studies as one teaching area. Students in this area may not choose Geography or Social Studies as their other area.

Courses chosen to complete this area must be approved by the Secondary Science Adviser.

**GEOGRAPHY/SOCIAL STUDIES (EXPANDED)**

Corequisite:  
HIST 105, 130, 240 ..... 3 ..... 3

Area:  
GEOG 101A and 101B ..... 3  
GEOG 203A and 203B ..... 3  
GEOG 361A and 361B ..... 3  
GEOG 349 and 350A ..... 3  
Upper level geography ..... 9  
Approved courses (minimum 3 units upper level) in ONE of the following areas: anthropology, classics, economics, history, pacific studies, political science, sociology ..... 9  
Approved courses in anthropology, classics, economics, history, law, pacific studies, political science, sociology ..... 4½ ..... 34½

GEOG 330 is not acceptable for credit in this area.

Courses chosen to complete this area must be approved by the Secondary Geography Adviser.

**GERMAN**

Corequisite:  
Literature course at the 200 level or higher in any language other than German ..... 3 ..... 3

Area:  
GER 100 and 200, or 149 ..... 6  
GER 204 ..... 3  
GER 300 ..... 3  
GER 400 or higher ..... 3 ..... 15

Additional area courses will be chosen by the student from those numbered 400 or higher.

Students should note that an oral examination in German is required before admission to the professional year. This exam must be completed to the satisfaction of the Faculty of Education, or admission to professional year will be denied.

**HISTORY**

Corequisites:  
ENGL 200, 201 or 202 ..... 3  
GEOG 101A and 101B ..... 3 ..... 6

Area:  
Canadian History ..... 3  
Modern European or contemporary world history ..... 3  
POLI 100, 360 and 361 or 362, or 470 ..... 3  
Approved history electives ..... 6 ..... 15

Courses chosen to complete this area must include at least 6 units lower level and at least 9 units upper level.

Students in this area may not choose History/History in Art, History/Social Studies, or Social Studies as their other area.

Except where prior permission is obtained from the Education Advising Centre, additional area courses will be chosen by the student from those numbered 300 or higher. Three units from CLAS 330 or 340 or HA 390 are also acceptable.

**HISTORY/HISTORY IN ART**

Corequisites:  
GEOG 101A and 101B ..... 3 ..... 3

Area:  
Canadian History ..... 3  
Modern European or contemporary world history ..... 3  
Approved history electives ..... 3-6  
HA 120 or 390 ..... 3  
History in Art electives ..... 6-9 ..... 21

At least 3 units of courses chosen in history must be upper level.

This is a 21 unit area for students wishing to take History and History in Art as one area.

Students in this area may not choose History or History/Social Studies as their other area.

**HISTORY/SOCIAL STUDIES**

Corequisites:  
GEOG 101A and 101B ..... 3 ..... 3

Area: (at least 6 units upper level)  
Canadian History ..... 3  
Modern European or contemporary world history ..... 3  
POLI 100, 360 and 361 or 362, or 470 ..... 3  
Approved history elective ..... 3  
Approved courses (including at least 3 units upper level) in anthropology, classics, economics, geography, law, pacific studies, political science, sociology ..... 9 ..... 21

GEOG 330 is not acceptable for credit in this area.

Courses chosen to complete this area must include at least 9 units upper level and must be approved by the Secondary History Adviser.

This is a 21 unit area for students wishing to take courses in History and Social Studies as one teaching area. Students in this area may not choose History, History/History in Art or Social Studies as their other area.

**HISTORY/SOCIAL STUDIES (EXPANDED)**

Corequisites:  
ENGL 200, 201, or 202 ..... 3  
GEOG 101A and 101B ..... 3 ..... 6

Area: (at least 6 units upper level)  
Canadian History ..... 3  
Modern European or contemporary world history ..... 3  
POLI 100, 360 and 361 or 362, or 470 ..... 3  
Approved history electives ..... 9  
Approved courses (minimum 3 units upper level) in ONE of the following areas: anthropology, classics, economics, geography, pacific studies, political science, sociology ..... 9  
Approved courses in anthropology, classics, economics, geography, law, pacific studies, political science, sociology ..... 4½ ..... 31½

GEOG 330 is not acceptable for credit in this area.

Courses chosen to complete this area must include 12 units upper level and must be approved by the Secondary History Adviser.

**MATHEMATICS**

Area:  
MATH 100 and 101 ..... 3  
MATH 233A and 233C ..... 3  
MATH 362 ..... 1½  
MATH 368A ..... 1½  
STAT 250 and 251 ..... 3  
Two of CSC 110, 112, 115 ..... 3 ..... 15

Students who consider Mathematics their first teaching area are advised to take a minimum of 18 units of mathematics and computer science courses. In addition to the 15 units listed above, MATH 333A and 333C are recommended. Additional area courses will be chosen by the student from courses in mathematics, statistics and computer science.

**MUSIC**

Area:  
MUS 101A ..... 1  
MUS 101B ..... 1  
MUS 170 ..... 1  
ME 101 ..... 1½  
ME 201 ..... 1½  
ME 301 ..... 1½  
ME 401\* ..... 1½  
Approved music and/or music education ..... 6  
Two of: MUS 180, 280, 380, 480, ME 118, 218, 318, 418, ME 120, 220, 320, 420, ME 121, 221, 321, 421 ..... 2 ..... 17

\* Any student who wishes to substitute an elective for ED-P 498 should

consult the Education Advising Centre.

Students wishing to enter this area must first seek acceptance through the Department of Art and Music Education. Prior to acceptance it will be necessary to demonstrate competence in theory to the level of ME 105, Royal Conservatory of Music Toronto Grade 2, or the equivalent, and to perform satisfactorily on a short musical aptitude test.

Courses taken to complete this area and additional area courses must be approved by the Secondary Music Adviser.

### PHYSICAL EDUCATION

Refer to page 141 for information regarding acceptance into this area.

Area:

PE 106, 107, 109, 115, 120 and 122	3	
PE 116 or 117	1/2	
One of PE 121, 123, 124, or 125	1/2	
*Any three 100 level activities	1 1/2	
PE 141	1 1/2	
PE 142	1 1/2	
PE 143	1 1/2	
PE 241A	1 1/2	
PE 241B	1 1/2	
PE 344	1 1/2	
PE 443	1 1/2	
PE 452	3	
PE 461 in three areas	1 1/2	
PE 463	1/2	21

\*Only one of 126-132 may be chosen. Those who do not hold a valid Bronze Medallion Certificate must take 105.

Additional area courses will be chosen by the student from those courses numbered 300 or higher.

### PHYSICAL EDUCATION (EXPANDED)

Refer to page 141 for information regarding acceptance into this area.

Area:

PE 106, 107, 109, 115, 120, and 122	3	
PE 116 or 117	1/2	
One of PE 121, 123, 124, or 125	1/2	
*Any three 100 level activities	1 1/2	
PE 141	1 1/2	
PE 142	1 1/2	
PE 143	1 1/2	
PE 241A	1 1/2	
PE 241B	1 1/2	
PE 341	1 1/2	
PE 342	1 1/2	
PE 344	1 1/2	
PE 441	1 1/2	
PE 442	1 1/2	
PE 443	1 1/2	
PE 444	1 1/2	
PE 452	3	
PE 461 in three areas	1 1/2	
PE 463	1/2	
One of PE 244, 270, 346	1 1/2	30

\*Only one of 126-132 may be chosen. Those who do not hold a valid Bronze Medallion Certificate must take 105.

Students choosing the expanded teaching area in physical education will be required to take, in addition, at least 7 1/2 units not including corequisites, chosen from one other teaching area with a grade point average of 4.00 (UVic B-).

## BACHELOR OF EDUCATION POST DEGREE PROFESSIONAL PROGRAM — SECONDARY

This is a two year program for applicants with an approved degree. The first year, normally ten months, prepares students for a teaching certificate. Completion of the second year results in the granting of the degree Bachelor of Education from the University of Victoria.

### ADMISSION

The deadline for receipt of application forms is February 28. There is a quota on each of the teaching subject areas of this program. Priority is

### PHYSICS

Corequisites:

MATH 100 and 101	3	
MATH 200 and 201	3	6

Area:

PHYS 100, 110, 120, 220, 215, 216, 317, 325; or 110, 120, 214, 215, 216, 220, 317, 325	12	
Approved Physics	3	15

Students are urged to seek advice from the Secondary Science Adviser. Additional area courses must be approved by the Adviser.

### SOCIAL STUDIES

Area:

GEOG 101A and 101B	3	
GEOG 203A and 203B	3	
GEOG 361A and 361B	3	
Canadian History	3	
Modern European or contemporary world history	3	
POLI 100, 360 and 361 or 362, or 470	3	
Three units chosen from GEOG 349, 350A, upper level history	3	21
GEOG 330 is not acceptable for credit in this area.		

Courses chosen in history and political science must include at least 3 units upper level.

This is a 21 unit area for students wishing to take Geography and History as one teaching area. In the professional year students will choose either ED-E 755 or 758. Students in this area may not choose Geography, History, History/History in Art, Geography/Social Studies or History/Social Studies as their other area.

### SOCIAL STUDIES (EXPANDED)

Corequisite:

ENGL 200, 201 or 202	3	3
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Area:

GEOG 101A and 101B	3	
GEOG 203A and 203B	3	
GEOG 361A and 361B	3	
GEOG 349 and 350A	3	
Upper level geography	3	
Canadian history	3	
Modern European or contemporary world history	3	
POLI 100, 360 and 361 or 362, or 470	3	
Approved history electives	6	
Approved courses in anthropology, classics, economics, upper level geography, upper level history, law, pacific studies, political science, sociology	4 1/2	34 1/2

GEOG 330 is not acceptable for credit in this area.

Courses chosen in history and political science must include at least 6 units upper level.

Students who elect this area will take both ED-E 755 and 758 in the professional year.

given to candidates presenting two teaching subjects. Applications will be considered from those who meet the following requirements:

- successful Faculty interview; and
- a degree from a recognized university; and
- the equivalent of 60 units acceptable in content to the Faculty of Education Admissions and Adjudication Committee; and
- a grade point average of at least 3.00 (UVic C+) on the most recent session and on the most recent two years (30 units); and
- credit for 3 units of approved English (The Faculty requires students

to demonstrate competency in written English. This may be satisfied by ENGL 115 with a grade of at least C+ or 215 as part of the required 3 units, or by successful completion of the ENGL 115 equivalency examination in addition to the 3 units of approved English.); and academic preparation which includes one of the following categories (i) to (v). NOTE: Priority is given to students presenting two teaching subjects, i.e. category (i).

- (f) (i) the equivalent of at least 9 units in upper level courses in each of two of the following subjects with a grade point average of at least 4.00 (UVic B-) on the best 9 units of upper level courses in each subject:

Art <sup>1</sup>	History <sup>5</sup>
Biological Sciences <sup>1</sup>	Mathematics <sup>6</sup>
Chemistry <sup>1</sup>	Music <sup>1</sup>
English <sup>2</sup>	Physical Education <sup>1</sup>
French <sup>3</sup>	Physics <sup>1</sup>
Geography <sup>4</sup>	Russian <sup>3</sup>
German <sup>3</sup>	Theatre <sup>1</sup>

(Other subject areas normally taught in the secondary schools of British Columbia may be acceptable subject to the approval of the Dean.)

<sup>1</sup>All art, music, physical education, theatre and science courses must be acceptable to the appropriate Departments for admission to the Curriculum, Instruction and Practicum courses. Potential art and music applicants are advised to include at least 3 units of Art Education and Music Education courses respectively, and to consult with the Department prior to submission of applications.

<sup>2</sup>Courses in children's literature are not acceptable.

<sup>3</sup>All candidates presenting a second language must pass an oral competency examination.

<sup>4</sup>Students presenting geography must have their courses approved by the geography adviser and their program must include HIST 130; 3 units of HIST 105, 240, 250, 252, 376, 392; GEOG 101A\*, GEOG 101B\*; GEOG 361B; 3 units from GEOG 201A, 201B, 203B, 205B; 3 units from GEOG 321, 322, 323, 341, 349; and 4½ units from GEOG 343, 365, 463A, 463B, 465.

<sup>5</sup>P.D.P.P. candidates with degrees from other than the University of Victoria may have these requirements waived if they can demonstrate physical and cultural elements courses in their high school, college or university background.

<sup>6</sup>Students presenting history must include at least 3 units of Canadian history at lower or upper level and also have an approved 3 units of introductory work in geography (for example, GEOG 101A, 101B, 201A, 201B, 203A, 203B, 205A, 205B).

<sup>6</sup>Students presenting mathematics may substitute the equivalent of the specified mathematics teaching area (page 153) with a grade point average of at least 4.00 (UVic B-) on the best 9 units, in place of 9 units of upper level mathematics.

- (ii) Master's or UVic Honours degree in one of the subjects listed in (i) with the exception of German, Russian and Theatre, which require a second teaching area;
- (iii) at least 15 units in upper level courses in any one of the subjects listed in (i) with the exception of German, Russian, Theatre, and Physical Education, with a grade point average of at least 4.00 (UVic B-) on the best 15 units of upper level courses;
- (iv) an approved expanded teaching area (single teaching area) with a grade point average of at least 4.00;
- (v) A Bachelor of Music with Major in Music Education (Secondary) from the University of Victoria including ED-D 401, 406, ME 101, 201, 301, and either ED-P 498 (choral only) or ME 401 (instrumental only), with a grade point average of at least 4.00 on all upper level courses in music and music education. Students in this category will be accepted with the same priority status as regular Bachelor of Education secondary students.

In addition, it is recommended that THEA 150, ENGL 215 and PSYC 100 be included in the preparatory work.

Students of exceptional ability who do not meet the stated admission requirements may appeal to the Faculty Admissions and Adjudication Committee for consideration. "Exceptional" may be considered in terms of high grade point average, relevant work experience or unique academic qualifications.

Normally applicants must have fulfilled the above requirements by

June 30 of the year of application. Students who believe their circumstances are unusual may appeal to the Faculty Admissions and Adjudication Committee for permission to meet the minimum requirements at the summer session prior to commencement of the program.

## PROGRAMS

Maximum enrollments have been established; therefore the Faculty cannot guarantee that all qualified candidates will be accepted. Accepted candidates will be notified as early as possible, but final acceptance may not be until late July.

Registration must be completed by Tuesday, September 6, 1988. No registration will be accepted after that date as school opening orientation begins on Wednesday, September 7.

Students interested in an Internship Program should make inquiries in the Education Advising Centre early in January, prior to submission of their application for admission.

Students will spend an extended time in the schools and take courses at the University directly related to their professional training. Normally, the courses are taken as a coordinated unit during a ten month period beginning in September. Because of the professional involvement off campus during this year, students are not normally permitted to take courses in addition to those specified. Any exceptions must have approval from the Education Advising Centre.

A grade point average of at least 3.00 must be obtained on this program in order to qualify for certification.

## COURSE REQUIREMENTS

### 1. Regular Program - Year 1

<i>September-May</i>	1 Area	2 Areas*
ED-D 401 .....	1½	1½
ED-D 337 .....	1½	1½
ED-B 343C .....	1½	1½
ED-B 359 .....	1	1
ED-D 406 .....	3	3
ED-A 750 - ED-E 769 .....	4½	6
ED-P 790 .....	1½	1½
ED-P 792 .....	½	½
	15	16½

\*except sciences and second languages

<i>May-June</i>		
ED-B 420, 423, 425 or 427 .....	3	3
ED-B 430 .....	1½	1½
	4½	4½
Total units .....	19½	21

Eligible for CERTIFICATION

### 2. Alternative Programs - Year 1

**NOTE: ALTERNATIVE PROGRAMS MAY NOT BE OFFERED EVERY YEAR**

#### (a) Saanich Internship Program

<i>July-August</i>	
ED-B 343C .....	1½
ED-B 430 .....	1½
ED-D 337 .....	1½
ED-P 777 .....	1½

<i>September-May</i>	
Approved Curriculum, Instruction and Practicum in Secondary School Subjects .....	4½-6
ED-D 401 .....	1½
ED-D 406 .....	3
ED-P 793 .....	1½

<i>May-June</i>	
ED-B 420, 423, 425 or 427 .....	3 .....

(b) Special Music Program\*

<i>September-May</i>	
ED-P 799A .....	9
ED-A 762 .....	3 or 4½
Approved Curriculum, Instruction and Practicum in a Secondary School subject, if required .....	3 or 0
Approved Education elective, if required .....	0 or 1½ .....
	15

\* Restricted to applicants who have completed the Bachelor of Music with Major in Music Education (Secondary) from the University of Victoria, or equivalent.

Eligible for CERTIFICATION

**3. Degree Completion**

Students may proceed to a B.Ed. degree by taking an additional 12 to 15 units. The courses should be selected in consultation with the Education Advising Centre to ensure that they support the teaching areas or are used to complete a second teaching area if appropriate.

## BACHELOR OF ARTS

### 1. MAJOR IN HUMAN PERFORMANCE

The Bachelor of Arts, Human Performance, offers a liberal arts and/or social science perspective in the study of fitness, sport, and physically active lifestyles. Options could focus on assessing the social and psychological implications of different activities and/or the administration of exercise programs.

The School of Physical Education each year will accept students in the Human Performance major by the selection process described under Admission to Physical Education on page 142. Students must also meet general Faculty admission requirements specified on page 142.

In order to continue in this program a grade point average of at least 3.00 is required in every session attended.

In order to graduate, students must successfully complete all requirements of the program and must have a grade point average of at least 3.00 on the final year of at least 15 units.

**Year One: (Arts and Science)**

ENGL 115/116 or 121/122 .....	3
PE 115 plus two activities .....	1½
PE 141 .....	1½
PE 143 .....	1½
PSYC 100 .....	3
SOCI 100 .....	1½
Elective .....	4½ .....
	16½

**Year Two:**

PE activities .....	2½
PE 142 .....	1½
PE 241A .....	1½
PE 241B .....	1½
PE 243 .....	1½
PSYC 240 or 331 .....	3
Electives .....	4½ .....
	16

**Years Three and Four:**

PE activities .....	2
PE 253 .....	1½
PE 342 .....	1½
PE 346 .....	1½
PE 347 .....	1½
PE 443 or 354A .....	1½
PE 444 .....	1½
PE 445 .....	1½
PE 447B .....	1½
Upper level psychology .....	3
Upper level sociology .....	3
Electives .....	13½ .....
	33½

**Total Units for Degree** ..... 66

**NOTES:**

- (a) Students must complete 6 units of activity courses which must include PE 105, PE 115, and at least two from the PE 461 series. PE 470 may be substituted for the two PE 461's at a loss of ½ unit.
- (b) Twelve units of electives must be from the Faculty of Arts and Science and at least 9 of these must be at the 300 or 400 level. No more than 6 may be additional physical education units.
- (c) A second area of concentration should be included. Consult the Human Performance Faculty Adviser.

### 2. MAJOR IN LEISURE STUDIES COOPERATIVE EDUCATION PROGRAM

The Leisure Studies program prepares students to enter the field of Recreational Administration and provides preparation in the planning, implementation and supervision of programs in a wide range of recreation settings.

The Leisure Studies Program is available only on a cooperative model basis. Please refer to page 28 for a general description of the Cooperative Education concept and general regulations governing all cooperative education students.

The School of Physical Education each year will accept students in the Leisure Studies major by the selection process described under Admission to Physical Education on page 142. Students must also meet general Faculty admission requirements specified on page 142 except that the grade point average must be at least 4.50 (instead of 3.00).

A maximum of 15 students will be admitted per year. Students must maintain at least a 3.50 grade point average and must complete four Work Terms (each a minimum duration of 13 weeks).

Each Work Term is noted on the student's academic record and transcript (grading: COM, N or F). A student who does not complete a Work Term satisfactorily will normally be required to withdraw from the program but the Leisure Studies Committee may, upon review, authorize a further Work Term. The performance of students in the Leisure Studies Cooperative Program will be reviewed after each campus term and each Work Term. Students whose performance is deemed unsatisfactory by the Leisure Studies Committee will be so informed and will be advised by the Committee of the conditions they are to satisfy in order to remain in the program.

In order to graduate, students must successfully complete all requirements of the program including at least four Work Terms and must have a grade point average of at least 3.50 on the final year of at least 15 units.

**Year One: (Arts and Science)**

C SC 100, 110, or 112 .....	1½
ENGL 115/116 or 121/122 .....	3
PE 115 plus two activities .....	1½
PE 141 .....	1½
PE 143 .....	1½
PSYC 100 .....	3
SOCI 100 .....	1½
Elective .....	3 .....
	16½

**Year Two:**

PE 142 .....	1½
PE 241B .....	1½
PE 243 .....	1½
PE 244 .....	1½
PE 252 .....	1½
PE 253 .....	1½
PE 270 .....	1½
PE activities .....	1½
PSYC 240 or 331 .....	3
Electives .....	1½ .....
	16½

**Year Three:**

ED-D 417 .....	3
PE 354A .....	1½
PE 354B .....	1½
SOCI 371 .....	1½
SOCW 200B .....	1½
Electives .....	6 .....
	15

**Year Four:**

Three of: ADMN 420, 421 423,425,431,437	4½	
ED-B 336	1½	
PE 454A/B	1½	
SOCI 365 (or approved upper level sociology)	1½	
Electives	6	15

**Total Units for Degree** ..... 63

**NOTES:**

- (a) Students must complete six activities from PE 104-132 and PE 461A-M.
- (b) Of the 16½ units of electives 6 units must be approved upper level courses from faculties other than the Faculty of Education.
- (c) When neither of the upper level sociology courses is offered, a substitute will be approved by the Leisure Studies Faculty Adviser.

## BACHELOR OF SCIENCE

### 1. MAJOR IN HUMAN PERFORMANCE

The Bachelor of Science, Human Performance, offers a science perspective in the study of fitness, sport, and physical activity. Options can focus on assessing fitness and performance, and the prescription of exercise programs.

The School of Physical Education each year will accept approximately 10 students in the Human Performance major by the selection process described under Admission to Physical Education on page 142. Students must also meet general Faculty admission requirements as specified on page 142.

In order to continue in this program a grade point average of at least 3.00 is required in every session attended.

In order to graduate, students must successfully complete all requirements of the program and must have a grade point average of at least 3.00 on the final year of at least 15 units.

**Year One: (Arts and Science)**

*BIOL 101 or 150	3	
*CHEM 100 or 101 or 140	1½	
*CHEM 102 or 145	1½	
ENGL 115/116 or 121/122	3	
PE 115 plus two activities	1½	
*PE 141	1½	
PE 143	1½	
Electives	3	16½

**Year Two:**

*MATH 100/101 or 102/151	3	
PE activities	3	
PE 142	1½	
*PE 241A	1½	
*PE 241B	1½	
*PHYS 102, 103 or two of 100, 110, 120	3	
Electives	3	16½

**Years Three and Four:**

PE activities	1½	
PE 253	1½	
*PE 341	1½	
*PE 344	1½	
*PE 441	1½	
*PE 442	1½	
*PE 444	1½	
PE 447B	1½	
*PE 451	1½	
Electives	19½	33

**Total Units for Degree** ..... 66

\* science designated units

**NOTES:**

- (a) To qualify for the Bachelor of Science degree 33 science designated units must be completed within the program.
- (b) Students must complete 6 units of activity courses which must include PE 105, PE 115, and at least two from the PE 461 series. PE 470 may be substituted for the two PE 461's at a loss of ½ unit.
- (c) Students may substitute a second 3 units in any of the four areas for one of the basic sciences (chemistry, physics, mathematics, biology).
- (d) At least 12 units of electives must be from science designated courses listed below and 9 of these must be at the 300 or 400 level. No more than 9 additional physical education units may be included.

Biochemistry	Mathematics
Biology	Microbiology
Chemistry	Physics
Computer Science	Statistics

The following specific courses are also approved:

ANTH 100A/B	PSYC 315 and 415
ANTH 250	PSYC 423
PSYC 215A/B	PSYC 424

### 2. MAJOR IN HUMAN PERFORMANCE COOPERATIVE EDUCATION PROGRAM

Please refer to page 28 for a general description of the Cooperative Education concept and general regulations governing all cooperative education students.

The School of Physical Education each year will accept a maximum of five students in this program by the selection process described under Admission to Physical Education on page 142. Students must also meet general Faculty admission requirements specified on page 142 except that the grade point average must be at least 4.50 (instead of 3.00).

Students must maintain a grade point average of at least 3.50 and must complete four Work Terms (each a minimum duration of 13 weeks).

Each Work Term is noted on the student's academic record and transcript (grading: COM, N or F). A student who does not complete a Work Term satisfactorily will normally be required to withdraw from the program. The performance of students in this program will be reviewed after each campus term and each Work Term. Students whose performance is deemed unsatisfactory will be so informed and will be advised of the conditions they are to satisfy in order to remain in the program.

In order to graduate, students must successfully complete all requirements of the program including at least four Work Terms and must have a grade point average of at least 3.50 on the final year of at least 15 units.

**Year One: (Arts and Science)**

*BIOL 101 or 150	3	
*CHEM 100 or 101 or 140	1½	
*CHEM 102 or 145	1½	
ENGL 115/116 or 121/122	3	
PE 115 plus two activities	1½	
*PE 141	1½	
PE 143	1½	
Electives	3	16½

**Year Two:**

*MATH 100/101 or 102/151	3	
PE activities	3	
PE 142	1½	
*PE 241A	1½	
*PE 241B	1½	
*PHYS 102, 103 or two of 100, 110, 120	3	
Electives	3	16½

**Year Three:**

PE 253	1½	
*PE 341	1½	
PE 354A	1½	
PE 354B	1½	
*PE 441	1½	
*PE 444	1½	
Electives	7½	16½

**Year Four:**

*PE 344	1½	
*PE 442	1½	
*PE 451	1½	
PE activities	1½	
Electives	10½	16½

**Total Units for Degree** ..... 66

\* science designated units

See NOTES under 1. above.

## DIPLOMA IN SCHOOL LIBRARIANSHIP

This is a fifteen unit program leading to a Diploma in School Librarianship, designed to prepare teachers to function as teacher librarians in either elementary or secondary schools.

Admission to the program normally requires certification and at least one year's successful teaching experience. For those teachers who have completed part or all of the former elementary program Library Education teaching area, it may be possible to replace those courses with other approved electives and complete requirements for the Diploma. It should be noted, however, that courses taken to apply toward the Diploma may not also apply toward a degree.

Normally students must complete 9 units of the required program at the University of Victoria.

The Diploma program is intended to be offered in summer sessions although some courses may be available during winter session. While it is hoped that all courses will be offered over a three summer cycle, it is not possible to ensure that all will be available.

### DIPLOMA IN SCHOOL LIBRARIANSHIP (ELEMENTARY)

LE 432	1/2
LE 433	1/2
LE 434A	1/2
LE 435	1/2
LE 437A	1/2
LE 438	1/2
ED-B 494Q*	1/2
ED-B 360	1/2
ED-B 361 or approved elective	1/2
ED-B 430	1/2

Pre- or corequisites:

ED-B 341**	3
ED-B 342	1/2
ED-B 343A or B	1/2

### DIPLOMA IN SCHOOL LIBRARIANSHIP (SECONDARY)

LE 432	1/2
LE 433	1/2

LE 434B	1/2
LE 435	1/2
LE 437B	1/2
LE 438	1/2
ED-B 494Q*	1/2
ED-B 360	1/2
ED-B 361 or approved elective	1/2
ED-B 430	1/2

Pre- or corequisites:

ED-B 342	1/2
ED-B 343C	1/2
ED-B 371	3

\* Directed studies

\*\* May substitute other approved children's literature course (1 1/2-3)

## CERTIFICATE IN KÓDALY METHODOLOGY

This is a nine unit program leading to a Certificate in Kódalý Methodology in Music Education, designed to provide teachers with a comprehensive background in both musicianship and pedagogy based upon the Kódalý system of music instruction.

**Year One**

ME 350	1/2
ME 351	1/2

**Year Two**

ME 450	1/2
ME 451	1/2

**Year Three**

ME 460	1/2
ME 461	1/2

This program is normally offered in summer session only. Courses applied toward this Certificate *may not* also apply toward a degree. Applicants who have previously received credit toward a degree for any of these courses (or their equivalents) may substitute up to three units of courses with the consent of the Department. To be admitted to the program students must normally have a 3 unit first year university level music theory course (e.g. University of Victoria MUS 101A, 101B and 170) or a second level conservatory theory course (e.g. Royal Conservatory of Music Grade II) or the equivalent.

## COURSES IN THE FACULTY OF EDUCATION

Courses are designated as follows:

ED-A	Department of Art and Music Education
AE	
ME	
ED-B	Department of Communication and Social Foundations
LE	Adult Education
	Curriculum Studies
	Early Childhood Education
	Educational Administration and Supervision
	Educational Foundations
	Educational Technology
	Language Arts
	Library Education
ED-C	School of Physical Education
PE	
ED-D	Department of Psychological Foundations in Education
	Communication and Counselling
	Learning and Development
	Measurement, Evaluation and Computer Applications in Education
	Special Education
ED-E	Department of Social and Natural Sciences
	Mathematics Education
	Science Education
	Social Studies Education
ED-P	Division of Professional Studies

**Not all courses listed hereunder will be offered every session.**

The University timetable lists the courses that will be offered in a specific session. Students should check with the appropriate Department or School regarding the upper level courses of their teaching areas.

Both core and elective courses included in the professional year and in specialized programs will be scheduled as part of a program and may vary from the normal timetable.

Elementary students registering in the professional year will be issued prepared timetables at the initial meeting on September 6, 1988. Secondary students will be given a preassigned course schedule from which they can make up their timetables at the initial meeting on September 6, 1988. Professional year students should not attempt to make up individual timetables before these meetings.

Courses numbered 700-799 are restricted to students accepted in a professional year. Students who wish to repeat any 700 level course must appeal to the Faculty Admissions and Adjudication Committee for permission.

Registration in all 300 level courses is restricted to students having second year standing or higher. Except in the Department of Art and Music Education, courses numbered 400 or above are reserved for students registered in third or following years. These regulations do not apply to students registered in a post degree professional program.

It is the responsibility of all registrants to ensure that all calendar prerequisites for the courses in which they register have been met. Prerequisites may be waived (a) if the student has completed equivalent work, or (b) in other exceptional cases. Consult the Education Advising Centre.

Many Education courses are open to students in other faculties. Further information is printed in the University timetable.

## DEPARTMENT OF ART AND MUSIC EDUCATION

### UNDERGRADUATE COURSES

#### ART EDUCATION

Dr. M.M. Travis, Elementary Adviser  
Professor G.S. Hodder, Secondary Adviser

#### **A E 101 (2) ART FOR GENERAL CLASSROOM TEACHERS (Elementary)**

Content of the Art program in the elementary school; principles, practice and techniques of instruction. (Not available for credit on a degree program for students who have already completed 100, 103 or ED-A 701) (Students planning to emphasize art in their degree program should register in 103.) (*Prerequisite:* Authorization to register in the Faculty of Education or permission of the Education Advising Centre) (2-1)

#### **A E 103 (formerly 100) (3) INTRODUCTION TO ART EDUCATION**

The role of art in education; practical exploration in art, classroom management and teaching techniques (elementary and secondary). (Not available on a degree program for students who have already completed 101 or ED-A 701) (Students planning to emphasize art in their degree program should register in this course.) (3-1)

**With the exception of AE 320 and 321 all of the following art education courses deal with classroom practice at both the elementary and secondary levels.**

#### **A E 200 (1½) DESIGN FOR THE CLASSROOM**

Analysis of the elements and principles of design, through practical and theoretical experiences as applied to the classroom. (3-1)

#### **A E 201 (1½) IMAGE DEVELOPMENT FOR THE CLASSROOM**

An introduction to theories, methods and practices of image development for the classroom. (3-1)

#### **A E 205 (1½) TWO DIMENSIONAL ART FOR THE CLASSROOM**

Teaching methods, techniques and studio investigation of media in drawing, painting, design, printmaking and other two dimensional art. (3-1)

#### **A E 208 (1½) THREE DIMENSIONAL ART FOR THE CLASSROOM**

Teaching methods, techniques and studio investigation of media in carving, modelling, construction and other three dimensional art. (3-1)

#### **A E 303 (3) CERAMICS**

An introductory course in ceramics. Discussion and practice will include all aspects of the methods and processes as they relate to classroom practice. (Consent of an art education adviser required if 309 already completed.) (3-1)

#### **A E 305 (1½) DRAWING FOR THE CLASSROOM**

Development of skills and teaching methods in drawing through studio exploration. (Normally not available for credit on a degree program for students who have already completed 302) (3-1)

#### **A E 306 (1½) PAINTING FOR THE CLASSROOM**

Development of skills and teaching methods in painting through studio exploration. (Normally not available for credit on a degree program for students who have already completed 302) (3-1)

#### **A E 307 (1½) PRINTMAKING FOR THE CLASSROOM**

Development of skills and teaching methods in printmaking through studio exploration. (Normally not available for credit on a degree program for students who have already completed 300) (3-1)

#### **A E 308 (1½) SCULPTURE FOR THE CLASSROOM**

Development of skills and teaching methods in sculpture through studio exploration. (Normally not available for credit on a degree program for students who have already completed 301) (3-1)

#### **A E 309 (1½) CERAMICS FOR THE CLASSROOM**

Development of basic skills and teaching methods in hand built ceramics, including operation of kilns. (Normally not available for credit on a degree program for students who have already completed 303) (3-1)

#### **A E 310 (1½) INTRODUCTION TO APPLIED DESIGN**

Introduction to skills and teaching methods in selected applied design

areas through studio exploration. (Normally not available for credit on a degree program for students who have already completed 304) (3-1)

#### **A E 315 (1½) CURRICULUM PLANNING IN ART EDUCATION**

Study of art education curriculum guides and of methods of planning programs for the classroom. (3-1)

#### **A E 316 (1½) ART CRITICISM SKILLS FOR THE CLASSROOM**

Development of critical skills for the classroom through study of art criticism theories and field experiences. (3-1)

#### **A E 317 (1½) ART APPRECIATION FOR THE CLASSROOM**

Methods of teaching art appreciation in the classroom with emphasis on Canadian Art. Students will prepare teaching materials. (3-1)

#### **A E 319 (1½) PHOTOGRAPHY FOR THE CLASSROOM**

Basic approaches to the use of photography as an art medium. (3-1)

#### **A E 320 (1½) ART AND THE YOUNG CHILD**

Study and development and characteristics of child art at preschool, kindergarten and primary levels with practical experience, teaching and evaluation methods. (3-1)

#### **A E 321 (1½) ART IN THE INTERMEDIATE GRADES**

A survey of studio methods and materials, texts, media resources, interdisciplinary procedures and evaluation methods with an emphasis on teaching at the intermediate level. (3-1)

#### **A E 401 (1½ or 3) SPECIAL STUDIES**

Studies of selected topics in the theory and practice of Art Education. (May be repeated up to 6 units with permission of the Faculty Adviser in the Department of Art and Music Education) (3-1)

#### **A E 402 (1½) SPECIFIC METHODOLOGIES, MATERIALS AND TECHNIQUES IN ART EDUCATION**

(A student may take up to a maximum of 6 units of the following areas; however, the maximum number of units accepted for credit on the student's degree program will be at the discretion of the Department.) (*Prerequisite:* Appropriate introductory course for the selected art area) (3-1)

402A Drawing  
402B Painting  
402C Printmaking  
402D Sculpture  
402E Applied Design  
402F Photography  
402G Reasoned Criticism (*Prerequisite:* 316 or 317)

#### MUSIC EDUCATION

Dr. N.T. Gantly, Elementary Adviser  
Dr. F.E. Churchley, Secondary Adviser

#### **M E 101 (1½) INTRODUCTION TO MUSIC EDUCATION**

Orientation to the profession; introduction to the role of music in education and society. Field trips to schools and institutions with exemplary music education programs to be included. Secondary level. (1-2)

#### **M E 104 (2) MUSIC FOR GENERAL CLASSROOM TEACHERS (Elementary)**

Content of the music program in the elementary school; principles, practice, and techniques of instruction. (Students planning to enter a music teaching area should register in 106.) (Not available for credit on a degree program for students who have already completed 106, ED-A 705 or 706.) (*Prerequisite:* Authorization to register in the Faculty of Education or permission of the Education Advising Centre) (2-1)

#### **M E 105 (1½) MUSIC FUNDAMENTALS FOR CLASSROOM TEACHERS**

Introduction to music for schools. This course will normally be followed by Music Education 106 in the second term. (Students with exceptionally strong music backgrounds may not be required to take this course.) (Not available for credit on a degree program for students who have already completed MUS 100 or 101) (3-0)

**M E 106 (1½) MUSIC IN THE ELEMENTARY SCHOOL (Introductory)**  
An introduction to the foundations of music education, the elementary music curriculum, and methods currently used in B.C. elementary schools. (Not available for credit on a degree program for students who have already completed ME 104) (*Pre- or corequisite:* MUS 101A, B, and 170) (3-0)

**M E 118 (1½) MUSIC THEATRE WORKSHOP**  
In depth study of techniques and procedures related to the production of musical plays in the school. Both artistic and technical (e.g., staging, lighting, costumes, makeup) aspects will be included. (May be repeated for credit.) (3-0)

**M E 120 (1) INSTRUMENTAL JAZZ CLINIC**  
A study of techniques for teaching jazz through performance and experience. (0-4)

**M E 121 (1) VOCAL JAZZ CLINIC**  
A study of techniques for teaching vocal jazz through performance and experience. (0-4)

**M E 201 (1½) MUSIC EDUCATION SEMINAR: I**  
A study of the foundations of music education for secondary schools. School experience will be required. (*Pre- or corequisite:* 101) (2-2) or (1-0; 1-2)

**M E 207 (1½) EDUCATIONAL MATERIALS FOR LISTENING**  
Continuation and development of classroom music activities with special emphasis on listening experiences. (3-0)

**M E 208 (1½) PIANO CLASS FOR CLASSROOM TEACHERS**  
Development of piano keyboard skills useful in classroom music. (2-2) or (1-1; 1-1) or (1½-1; 1½-0)

**M E 216 (1) INSTRUMENTAL CLINIC**  
Practical ensemble experience on secondary instruments; techniques and materials for teaching, including conducting and instrument repair. (0-4)

**M E 218 (1½) MUSIC THEATRE WORKSHOP (Laboratory)**  
Workshop productions of one or two musical plays. (*Prerequisite:* 118 or permission of the department) (0-6)

**M E 219 (1) CHORAL SEMINAR**  
A study of choral techniques and literature as they apply to schools, including both conducting experience and school involvement. A piano component may be included. (0-4)

**M E 220 (1) INSTRUMENTAL JAZZ CLINIC**  
(Description as for 120)

**M E 221 (1) VOCAL JAZZ CLINIC**  
(Description as for 121)

**M E 300 (1½) THE TEACHING OF CHORAL AND CLASSROOM SINGING**  
Materials and rehearsal techniques for use with school choral activities. (*Prerequisite:* 105 or MUS 101A and 101B or consent of instructor) (3-0)

**M E 301 (1½) MUSIC EDUCATION SEMINAR: II**  
A study of programs and materials for secondary schools with an emphasis on general music programs. Some school experience will be required. (Grading: INC; letter grade) (*Prerequisite:* 201) (2-2) or (1-0; 1-2)

**M E 302 (1½) MUSIC IN EARLY CHILDHOOD**  
A survey of developmental implications as they pertain to the musical growth of the young child (3-8 years). Current music education methods and materials will be studied, and laboratory experiences will be included. (Not normally available to students in a music teaching area or concentration, except with permission of the instructor.) (3-0)

**M E 303 (1½) CLASSROOM INSTRUMENTS**  
Students will acquire a satisfactory level of proficiency for classroom purposes. (A student may take all of the following areas; however, the maximum number of units accepted for credit on the student's degree program will be at the discretion of the Department.) (2-2)

303A Guitar

YO1 Beginning guitar for classroom teachers with little or no music background

YO2 Beginning guitar for classroom teachers with Music Education 105 or equivalent music background

303B Ensembles

303C Ukulele

**M E 306 (3) MUSIC IN THE ELEMENTARY SCHOOL (Advanced)**  
A survey of texts and materials and methods of instruction for use in the elementary classroom. Sequential planning involving listening, singing, instrumental playing and movement activities. A school experience component is normally included. (*Prerequisite:* 106) (3-0)

**M E 308 (1½) PIANO CLASS FOR CLASSROOM TEACHERS (Advanced)**  
Continuation of development of piano keyboard skills useful in classroom music. (*Prerequisite:* 208 or equivalent) (2-2) or (1-1; 1-1) or (1½-1; 1½-0)

**M E 309 (1½) CANADIAN MUSIC FOR SCHOOLS**  
A survey of current educational resources in Canadian music; literature, activities and teaching techniques; correlation with other classroom studies. (3-0)

**M E 316 (1) INSTRUMENTAL CLINIC**  
(Description as for 216)

**M E 318 (1½) MUSIC THEATRE WORKSHOP (Laboratory)**  
(Description as for 218)

**M E 319 (1) CHORAL SEMINAR**  
(Description as for 219)

**M E 320 (1) INSTRUMENTAL JAZZ CLINIC**  
(Description as for 120)

**M E 321 (1) VOCAL JAZZ CLINIC**  
(Description as for 121)

**M E 400 (1½) STUDY OF SPECIFIC METHODOLOGY IN MUSIC EDUCATION CURRICULUM, MATERIALS AND TECHNIQUES**  
(A student may take all of the following areas; however, the maximum number of units accepted for credit on the student's degree program will be at the discretion of the Department.) (*Prerequisite:* 306) (3-0)

400B Orff

400C Experimental Music in Schools

400D Computers in Music Education (no prerequisite)

**M E 401 (1½) MUSIC EDUCATION SEMINAR: III**  
Initiating and maintaining instrumental programs in the schools. School experiences will be required. Secondary level. (Grading: INC; letter grade) (*Prerequisite:* 301) (2-2) or (1-0; 1-2)

**M E 418 (1½) MUSIC THEATRE WORKSHOP (Laboratory)**  
(Description as for 218)

**M E 420 (1) INSTRUMENTAL JAZZ CLINIC**  
(Description as for 120)

**M E 421 (1) VOCAL JAZZ CLINIC**  
(Description as for 121)

#### KÓDALY PROGRAM

These courses are intended to be offered during Summer only.

**ME 350 (1½) KÓDALY — PEDAGOGY: I**  
An overview of the Kódalý concept, strategies and techniques for developing rhythmic and tonal skills, concepts and musical attitudes; includes study of early childhood repertoire; songs, games and dances related to the primary curriculum (years K-3). (Not available for credit on a degree program for students who have already completed 400A)

**ME 351 (1½) KÓDALY — MUSICIANSHIP: I**  
Tonal and rhythmic dictation, sight reading, improvisation, conducting and part reading; beginning level.

**ME 450 (1½) KÓDALY — PEDAGOGY: II**  
Continuing study of techniques for developing rhythmic and tonal skills,

curriculum development and lesson planning; includes study of early intermediate repertoire (years 4-5). (*Prerequisite:* 350)

**ME 451 (1½) KÓDÁLY — MUSICIANSHIP: II**  
Continuation of 351; intermediate level. (*Prerequisite:* 351)

**ME 460 (1½) KÓDÁLY — PEDAGOGY: III**  
Continuing study of techniques for developing rhythmic and tonal skills, curriculum development and lesson planning; includes study of upper intermediate repertoire (years 6-7). (*Prerequisite:* 450)

**ME 461 (1½) KÓDÁLY — MUSICIANSHIP: III**  
Continuation of 451; advanced level. (*Prerequisite:* 451)

### SPECIAL STUDIES

Contact individual professors or department Chairman for information.

**ED-A 480 (1½ or 3) CONTEMPORARY ISSUES IN EDUCATION — ART AND MUSIC**  
Current topics and developments in education, with particular consideration of their relevance to the schools of British Columbia. This will be taught from an interdisciplinary approach. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-A 487 (1½ or 3) SPECIAL TOPICS IN EDUCATION — ART AND MUSIC**  
Topics of current interest or concern to groups of students. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-A 494 (1½) DIRECTED STUDIES**  
Research projects, directed reading, or additional course work in a specified area. (All students must obtain written approval from the Education Advising Centre before registering. Permission will not normally be given for more than three units of directed studies.)

494A Art Education  
494T Music Education

**ED-A 495 (1½) DIRECTED STUDIES**  
(Description as for 494)

**ED-A 499 (½-3) PROFESSIONAL DEVELOPMENT — ART AND MUSIC**  
(This is a variable content course directed at improving specific teacher and/or administrator competencies. It will normally be offered off campus. Not more than 3 units of credit for any 499 courses may be approved as electives on an education degree program. Approval must be obtained from the Education Advising Centre.)  
(Grading: COM, N, or F)

**ED-A 750 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — ART**  
Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean.  
(Grading: INC; letter grade; INP)

**ED-A 762 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — MUSIC**  
Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean.  
(Grading: INC; letter grade; INP)

### ED-A 767 (3) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — THEATRE

Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean. (Grading: INC; letter grade; INP)

## GRADUATE COURSES

Students should consult the Graduate Programs Office in the Faculty of Education concerning the courses offered in any particular year; such offerings will depend upon student program needs and the availability of instructors.

Dr. F.E. Churchley, Graduate Adviser

**ED-A 540 (1½) RESEARCH IN CURRICULUM AND INSTRUCTION IN THE ELEMENTARY GRADES — MUSIC**  
Review of the literature; critical analysis of significant research; planning curriculum research at the elementary school level.

**ED-A 541 (1½) RESEARCH IN CURRICULUM AND INSTRUCTION IN THE SECONDARY GRADES — MUSIC**  
Review of the literature; critical analysis of significant research; planning curriculum research at the secondary level.

**ED-A 552 (1½) ADVANCED SEMINAR IN MUSIC EDUCATION**  
Survey of recent literature in the field, identification of current issues, problems of professional development vis-à-vis advanced study in Music Education.

**ED-A 558 (1½) DEVELOPMENT AND IMPLEMENTATION OF THE CURRICULUM IN A SPECIFIC AREA — ART AND MUSIC**  
Application of relevant theories and models to the design and development of school curricula in a specific area.

558A Art  
558M Music

**ED-A 590 (credit to be determined) SPECIAL PROBLEMS — ART AND MUSIC**  
(May be taken more than once for credit providing the course content is different from that previously taken. The student must obtain consent of the chairman of the student's supervisory committee and the instructor offering the area of individual study prior to registering in this course.)

**ED-A 591 (1½ or 3) SELECTED TOPICS IN EDUCATION**  
(This is a variable content course. Students will be permitted to take it more than once for credit to a maximum of six units, provided the course content is different from that previously taken. A Pro Forma indicating the title, content, and method of evaluation will be included in each student's portfolio.)

**ED-A 597 (0) COMPREHENSIVE EXAMINATION — ART AND MUSIC**  
Comprehensive examination which must be passed as required for individual Master of Education programs within the Faculty of Education  
(Grading: INP, COM, N or F)

**ED-A 598 (credit to be determined) PROJECT — ART AND MUSIC**  
(Grading: INP, COM, N or F)

**ED-A 599 (credit to be determined) THESIS — ART AND MUSIC**  
(Grading: INP, COM, N or F)

# DEPARTMENT OF COMMUNICATION AND SOCIAL FOUNDATIONS

## UNDERGRADUATE COURSES

### ADULT EDUCATION

Dr. L.E. Devlin, Area Adviser

#### ED-B 336 (1½) PROGRAM PLANNING IN ADULT EDUCATION

An examination of the elements associated with the planning of educational programs for adult learners in a wide variety of social and institutional settings. Specific attention will be given to program planning models, needs assessment, analysis of participants, classroom processes and instructional design, evaluation, and practical program management. Each of these program planning elements will be examined both conceptually and within the context of their actual manifestation in current adult education practice. (3-0)

#### ED-B 436 (3) ADULT EDUCATION: CONCEPTS, THEORY AND PRACTICE

An identification of the theoretical basis of adult learning behaviour and the characteristics of adult education as a social and institutional practice. Topics include an operational definition of adult education, an historical development of the concept, an analysis of the various roles of persons involved with adult education, a review of the learning patterns of adults, an analysis of particular program emphasis in adult education, and the articulation of selected contemporary issues in the area. The concept of adult education is considered as separate from degree oriented higher education. (3-0)

### CURRICULUM STUDIES

Dr. A. Oberg, Area Adviser

#### ED-B 450 (1½, formerly 3) PRIMARY CURRICULUM IN THE CLASSROOM

The theory and practice of creating effective learning environments for the primary grades. To provide the background and critical perspective necessary for interpretation, selection, integration, implementation and evaluation of curricula. (*Prerequisite*: Professional Year. For P.D.P.P. students Professional Year is a corequisite) (3-0)

#### ED-B 451 (1½) INTERMEDIATE CURRICULUM IN THE CLASSROOM

Trends, research and issues of the intermediate/middle grades as a basis for curriculum development, organization and instruction. (*Pre-or corequisite*: Professional year) (3-0)

#### ED-B 788 (6) INSTITUTE FOR NATIVE LANGUAGE TEACHERS

An integrated program in current curriculum developments and methods of instruction for native language teachers. Limited to students enrolled in the Native Indian Language Teacher Training program.

### EARLY CHILDHOOD EDUCATION

Dr. A. Preece, Area Adviser

#### ED-B 339 (1½) INTRODUCTION TO EARLY CHILDHOOD EDUCATION

An introductory survey of early childhood education designed as an initial orientation to teaching children ages three to six. The course provides an overview of typical programs, curricula, methods and materials found in early childhood education today. (3-0)

#### ED-B 440 (1½) EARLY CHILDHOOD EDUCATION

A comparative evaluation of contemporary issues and early childhood education program models to provide a theoretical basis for curriculum development. (*Pre-or corequisite*: 339 or consent of the instructor; Professional year (except students in Child Care) (3-0)

#### ED-B 441 (1½) EARLY CHILDHOOD EDUCATION CURRICULUM DEVELOPMENT

An in depth study of principles, procedures, related research and literature of early childhood education curriculum development emphasizing selection and application of methods, materials, and resources for teaching day care, preschool and kindergarten children. (*Prerequisite*: 440 or equivalent; Professional year (except students in Child Care) (3-0)

#### ED-B 448 (1½) SEMINAR AND PRACTICUM IN EARLY CHILDHOOD EDUCATION

Observation and supervised practice teaching in the preschool and kindergarten.

Course activities include weekly half day observations and a seminar. A post session practicum or a project will be required. (*Pre-or corequisite*: 441 or consent of the instructor; Professional year) (3-0)

### EDUCATIONAL ADMINISTRATION AND SUPERVISION

Dr. Y. Martin-Newcombe, Area Adviser

#### ED-B 430 (1½) THE ORGANIZATION AND ADMINISTRATION OF EDUCATION IN BRITISH COLUMBIA

Introduction to structure and process of the B.C. School System. Teacher-administration relationships. Emerging trends and controversial issues in school organization and practice. Value problems in the profession. School law and legal requirements. Public and professional relationships. Classroom management. (*Prerequisite*: Authorization to register in the Faculty of Education or permission of the Education Advising Centre) (3-0)

#### ED-B 431 (1½) INTRODUCTION TO EDUCATIONAL ADMINISTRATION

The meaning and purpose of educational administration. Concepts related to the theory, tasks, authority, processes of educational administration. The Administrator — characteristics, qualifications, selection, preparation. (*Pre-or corequisite*: Professional year) (3-0)

#### ED-B 435 (1½) SUPERVISION — SETTING, METHODS AND OVERVIEW

An examination of leadership, change, authority and power structures and organizational climate in supervision settings. Consideration given to evaluation, motivation, techniques available for the systematic observation and analysis of teaching, and supervision of program development and evaluation. (*Prerequisite*: Consent of the instructor) (3-0)

### EDUCATIONAL FOUNDATIONS

Dr. T. Fleming, Area Adviser

#### ED-B 320 (1½) SOCIAL ISSUES IN CANADIAN EDUCATION

A colloquium to explore salient and current social issues relevant to provision of formal education in Canada. (3-0)

#### ED-B 420 (3) PHILOSOPHY OF EDUCATION

An introductory course dealing with the philosophical foundations of education and their implications for curriculum and instruction in the schools. (3-0)

#### ED-B 423 (3) HISTORY OF EDUCATION

Development of educational theory and practice from the time of ancient Greece to the present. (3-0)

#### ED-B 425 (3) ANTHROPOLOGY AND EDUCATION

Theory and perspectives from cultural anthropology relevant to the processes of education and operations of schools. (3-0)

#### ED-B 427 (3) SOCIOLOGY OF EDUCATION

The social structure of western civilization and its significance for education. (3-0)

#### ED-B 432 (1½) VALUE EDUCATION

An examination of the nature of value, the developmental and psychometric aspects of values, and some current practices in value education in schools. (3-0)

### EDUCATIONAL TECHNOLOGY

Dr. G.D. Potter, Area Adviser

#### ED-B 359 (1) INTRODUCTION TO LEARNING RESOURCES

The role of resources in learning; utilization of materials in schools and the role of school libraries, laboratory in basic audio visual instructional techniques. (Grading: COM, N or F) (1-2)

#### ED-B 360 (1½) EDUCATIONAL TECHNOLOGY

The use of communications media in education. Practical experiences in the operation of audio visual and computing equipment and the utilization of instructional materials. Basic production skills in photography, audio and video taping. (2-2)

**ED-B 361 (1½) ADVANCED EDUCATIONAL TECHNOLOGY**

The theoretical and practical elements of educational technology; comparative study of contemporary theories of communication; in depth practical skills in one of television production, film making, photography, graphics, microcomputing, or audio production. (*Prerequisite:* 360) (2-2)

**ED-B 362 (1½) THE MASS MEDIA AND EDUCATION**

The history and development of mass media in North America; the effects of radio, television and film on children's home life and school experience; the educational uses of the mass media; current developments in educational television; satellite based interactive instructional systems. (Offered in 1985-86 and alternate years) (2-2)

**ED-B 463 (1½) FILM AND EDUCATION**

The theory, form and social function of film, and its utilization as an instructional resource in education; basic elements of composition; techniques of analysis, evaluation and incorporation into curriculum. (Offered in alternate years commencing 1984-85) (2-2)

**LANGUAGE ARTS**

Dr. A. Olson, Area Adviser

**ED-B 290 (3) PRINCIPLES OF TEACHING NATIVE B.C. LANGUAGES AS SECOND LANGUAGE**

The application of linguistic principles to teaching B.C. native languages in school native studies or native language retention programs; includes instructional methods, evaluation and program strategies, micro-teaching, observation and final practicum. (2-0)

**ED-B 331 (1½) INTRODUCTION TO THE STUDY OF LANGUAGE ARTS IN THE ELEMENTARY SCHOOL**

An overview of teaching the language arts and developing oral and written skills through the use of children's literature. (Not available for credit on a degree program for students who have completed a professional year.) (*Prerequisite:* Authorization to register in the Faculty of Education or permission of the Education Advising Centre) (3-0)

**ED-B 341 (3) LITERATURE IN THE ELEMENTARY SCHOOL**

Survey of children's literature; selection of books for children; scope and sequence in the development of a literature program in the primary and intermediate grades. (3-0)

**ED-B 342 (1½) FOUNDATIONS OF READING**

Consideration of the processes and psychology of reading. (*Prerequisite:* Elementary professional year) (3-0)

**ED-B 343 (1½) READING IN THE SCHOOL**

Components of a total reading program: examination, evaluation, and construction of instructional materials; curricular organization. (*Prerequisites:* 342; professional year for students on an elementary program) (Credit for only one of the following areas may be applied to a degree program) (3-0)

343A — Reading in the Primary Grades

343B — Reading in the Intermediate Grades

343C — Reading in the Secondary Schools

**ED-B 349 (3) LANGUAGE IN THE ELEMENTARY SCHOOL**

Program development in listening, speaking and writing in the elementary school; principles and practices. (*Prerequisite:* Professional year) (3-0)

**ED-B 350 (3) FOUNDATIONS OF READING AND WRITING IN THE SECONDARY GRADES**

A study of the nature and development of reading and writing abilities in the secondary grades with specific reference to the linguistic and psychological bases of the reading and writing processes. Emphasis will be placed on the integrative nature of language processes and the place of speaking and listening in the development of reading and writing. (3-0)

**ED-B 371 (3) (formerly 351, 471) LITERATURE FOR YOUNG ADULTS**

A survey of standard, classic, and current literature for the adolescent with attention to the adolescent's response to literature and the stimulation of reading through appropriate selection of literature for young adults. Specific readings may be required in advance for this course. (3-0)

**ED-B 442 (3) CORRECTIVE READING INSTRUCTION**

A course covering classroom diagnosis and treatment of reading difficulties; prevention of reading disabilities; corrective classroom procedures. Students will become familiar with materials and procedures for the correction of various types of reading disabilities. This course is useful to the classroom teacher and to the reading specialist. A portion of the course may involve remedial work in a school setting. (*Pre-or corequisite:* Professional year, and 342 or permission of the instructor. Students in the Learning Assistance teaching area will be allowed to take this course without 342 provided they have completed the professional year.) (3-0; 3-0)

**ED-B 490 (3) PRINCIPLES OF TEACHING SECOND LANGUAGES**

The application of principles for teaching second languages. The examination of curriculum and methodology for use in second language programs in the elementary and secondary schools. (*Prerequisite:* Professional year) (3-0)

**ED-B 748 (1½) READING INSTRUCTION IN THE ELEMENTARY SCHOOL. (Primary or Intermediate Grade Emphasis)**

A study of the elementary reading curriculum emphasizing selection and application of materials, resources and methods for teaching reading. (*Prerequisite:* Acceptance in a professional year) (2-0)

**ED-B 748A (1½) READING INSTRUCTION IN THE ELEMENTARY SCHOOL (Primary or Intermediate Grade Emphasis)**

Course content as for 748 with application for native language teachers. (Limited to students enrolled in the Native Indian Language Teacher Training program.) (2-0)

**ED-B 749 (1½) ORAL AND WRITTEN EXPRESSION IN THE ELEMENTARY SCHOOL. (Primary or Intermediate Grade Emphasis)**

A study of the elementary language arts curriculum emphasizing selection and application of materials, resources and methods for teaching oral and written expression. (*Prerequisite:* Acceptance in a professional year) (2-0)

**ED-B 749A (1½) ORAL AND WRITTEN EXPRESSION IN THE ELEMENTARY SCHOOL (Primary or Intermediate Grade Emphasis)**

Course content as for 749 with application for native language teachers. (Limited to students enrolled in the Native Indian Language Teacher Training program.) (2-0)

**ED-B 753 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — ENGLISH**

Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean. (Grading: INC; letter grade; INP)

**ED-B 754 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — SECOND LANGUAGE**

754A (3-4½) French 754B (3) German

Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. More than one of these courses can be taken with permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean. (Grading: INC; letter grade; INP)

**SPECIAL STUDIES**

Contact individual Professors or Department Chairman for information.

**ED-B 390 (3) CLASSROOM TECHNIQUES IN TEACHING ORAL FRENCH**

This course includes analysis of theoretical and practical elements of teaching French as a second language. Students will be introduced to the B.C. Curriculum Guide, methods of presentation, and use of aids. Special attention will be given to automated language teaching. (*Pre- or corequisite:* A working knowledge of oral French, as determined by the instructor) (3-0-1)

**ED-B 480 (1½ or 3) CONTEMPORARY ISSUES IN EDUCATION — COMMUNICATION AND SOCIAL FOUNDATIONS**

Current topics and developments in education, with particular consider-

ation of their relevance to the schools of British Columbia. This will be taught from an interdisciplinary approach. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-B 487 (1½ or 3) SPECIAL TOPICS IN EDUCATION — COMMUNICATION AND SOCIAL FOUNDATIONS**

Topics of current interest or concern to groups of students. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-B 494 (1½) DIRECTED STUDIES**

Research projects, directed reading, or additional course work in a specified area. (All students must obtain written approval from the Education Advising Centre before registering. Permission will not normally be given for more than three units of directed studies.)

- 494A Adult Education
- 494C Drama in Education
- 494D Early Childhood Education
- 494E Educational Administration
- 494F Educational Foundations
- 494G Educational Technology
- 494J Teaching of English
- 494K Language Arts
- 494L Teaching of a Second Language
- 494Q Library Education

**ED-B 495 (1½) DIRECTED STUDIES**

(Description as for 494)

**ED-B 499 (½-3) PROFESSIONAL DEVELOPMENT — COMMUNICATION AND SOCIAL FOUNDATIONS**

This is a variable content course directed at improving specific teacher and/or administrator competencies. It will normally be offered off campus. Not more than 3 units of credit for any 499 courses may be approved as electives on an education degree program. Approval must be obtained from the Education Advising Centre. (Grading: COM, N or F)

**LIBRARY EDUCATION**

Mr. D. Hamilton, Area Adviser

**L E 432 (1½) THE SCHOOL LIBRARY AND THE TEACHER**

The library as a vital part of the teacher's program, its philosophy and services. For all teachers — elementary and secondary. (3-0)

**L E 433 (1½) THE SCHOOL LIBRARIAN**

The role of the school librarian, administration of a school library, staffing supervision. (Prerequisite: Professional year) (3-0)

**L E 434 (1½) SCHOOL LIBRARY MATERIALS**

The evaluation, selection and acquisition of learning materials in all media formats. (Credit for only one of the following areas may be applied to a program.)

434A — Elementary school emphasis

434B — Secondary school emphasis

(Prerequisite: Professional year) (3-0)

**L E 435 (1½) CATALOGUING AND CLASSIFICATION FOR SCHOOL LIBRARIES**

The principles and practice of basic classification systems and cataloguing rules applied to the needs of the school library. (Prerequisite: Professional year) (3-0)

**L E 437 (1½) REFERENCE SERVICES FOR SCHOOL LIBRARIES**

The role of reference materials in meeting students' and teachers' needs.

(Credit for only one of the following areas may be applied to a degree program.)

437A — Elementary school emphasis

437B — Secondary school emphasis

(Prerequisite: Professional year)

(3-0)

**L E 438 (1½) PROBLEMS AND ISSUES IN SCHOOL LIBRARIANSHIP**

Addresses current problems and issues facing school librarianship. (Prerequisites: 432 and professional year) (May be repeated for credit) (3-0)

**GRADUATE COURSES**

Students should consult the Graduate Programs Office in the Faculty of Education concerning the courses offered in any particular year. Offerings will depend upon student program needs and the availability of instructors.

Dr. P. Evans, Language Arts Adviser

Dr. M. Mayfield, Early Childhood Education Adviser

Dr. Y. Martin-Newcombe, Administration Adviser

Dr. A. Oberg, Curriculum Studies Adviser

Dr. G. Potter, Educational Technology Adviser

**ED-B 520 (3) SEMINAR IN PHILOSOPHY OF EDUCATION**

An analysis of the theories of leading contemporary thinkers as they relate to basic values, purposes and problems in public education.

**ED-B 521 (3) EDUCATIONAL CLASSICS**

A study in depth of certain selected "great books" that have had significant influence upon educational thought and practice.

**ED-B 531 (3) CONCEPTS AND THEORY IN ADMINISTRATION**

Critical examination of the classical and modern literature of administrative studies within organizational perspectives, with emphasis on administrative philosophy, decision making processes, power and authority, leadership studies, and general systems theory.

**ED-B 532 (1½ or 3) ADMINISTRATION OF THE EDUCATIONAL PROGRAM**

Examination of approaches to, and problems associated with, the implementation, coordination, supervision, and evaluation of the school's instructional programs.

**ED-B 533 (1½ or 3) CRITICAL DETERMINANTS OF ADMINISTRATION**

(May be taken once for credit in each of the areas listed below)

533A Politics and Governance of Education

An analysis of the electoral processes in public education, the forces which emanate from and impinge on elected educational officials, the activities of special interest groups, and the resulting implications for appointed administrators.

533B The Law and Education

The study of Federal and Provincial statutes, Ministerial regulations, school board policies, and pertinent court decisions as they impinge, legally, upon the role of the educational administrator.

533C Educational Finance

An analysis of the funding of public education, with emphasis upon general principles of finance, governmental structures, taxation procedures, resource allocation, and budgetary practices, with a specific focus on the British Columbia scene.

**ED-B 534 (1½ or 3) ORGANIZATIONAL ANALYSIS AND DEVELOPMENT**

A review of strategies for change and development in educational organizations, with special attention to survey research, action research, organizational diagnosis, team building, and overcoming organizational resistance.

**ED-B 535 (1½ or 3) COMPARATIVE ADMINISTRATION**

(May be taken once for credit in each of the areas listed below)

535A Regional Comparisons

Comparative studies of educational administration and systems in Canada and selected foreign countries.

535B Institutional Comparisons

Selected cross organizational studies in public, military, hospital, and commercial administration.

**ED-B 536 (1½ or 3) PHILOSOPHY OF ADMINISTRATION**

An examination through a case study approach, of the relevant interaction of philosophy and administration, with a view to clarifying philosophical concepts and theories and their application to the analysis, by administrators, of their own and others' behaviour.

**ED-B 537 (1½ or 3) TASKS AND PROCESSES OF ADMINISTRATION**

(May be taken once for credit in each of the areas listed below)  
537A Planned Change

An analysis of the processes associated with planned change in public education, with a view to assisting administrators to facilitate such change.

## 537B Decision Making

A study of the factors affecting, and processes involved in, effective decision making by educational administrators.

## 537C Leadership

An examination of general leadership theories, leadership styles, and leadership effectiveness models as they apply to educational administrators.

## 537D Instructional Supervision

Through an analysis of literature in leadership, communication, change and activation, as well as through an analysis of classroom observation techniques, the development of rational organizational patterns of supervision for educational administrators.

## 537E Personnel Management

An examination of the personnel function within educational institutions, with emphasis upon effective personnel policies, recruitment and selection, placement, professional development, promotion and performance evaluation.

## 537F Policy Making

An analysis of the nature of policy development and policy execution at provincial and school district levels, and the implications for educational administrators.

## 537G The Principalship

Analysis of the role of the school principal, with emphasis upon legal status, administrative tasks, and managerial performance.

## 537H Educational Planning

A review of the concepts, approaches and actual practice of educational planning of both macro- and microlevels of activity. New features of planning will be examined for improving the design or policies and the operational procedures of educational organizations.

**ED-B 540 (3) RESEARCH IN CURRICULUM AND INSTRUCTION — LANGUAGE AND READING**

Review of the literature; critical analysis of significant research; planning research in curriculum and instruction. (*Prerequisite:* 342, 343 and 349 or equivalent)

**ED-B 541 (3, formerly 1½) RESEARCH IN CURRICULUM AND INSTRUCTION IN THE SECONDARY GRADES — ENGLISH**

Review of the literature; critical analysis of significant research; planning curriculum research at the secondary level.

**ED-B 542 (3) READING PROCESSES IN THE SCHOOL CURRICULUM**

An intensive examination of the acquisition and the development of reading competence, focusing on the cognitive and linguistic processes. The course will include an analysis of reading research, methods and materials. (*Pre-or corequisite:* 540 or consent of instructor)

**ED-B 543 (3) LANGUAGE PROCESSES IN THE SCHOOL CURRICULUM**

An intensive examination of the processes through which competence in listening, speaking and writing is developed and of the products which result. The course will include an analysis of language research, methods and materials. (*Pre-or corequisite:* 540 or consent of instructor)

**ED-B 544 (3) ADVANCED COURSE IN REMEDIAL READING**

This course focuses on theoretical and practical issues in the causation, diagnosis, and remediation of reading difficulties as these are encountered in the school setting. Seminar discussions will centre on the research literature relevant to reading difficulties; the practical component will involve students in working in a clinical setting with children with reading problems. (*Prerequisite:* 342/343)

**ED-B 545 (1½) THE READING CURRICULUM IN THE SECONDARY SCHOOL: THEORY AND PRACTICE**

This course will focus on issues in the definition, development and function of secondary school developmental, corrective, and remedial reading programs. The course will also consider the role of the reading consultant in program implementation. (*Prerequisite:* 342/343C)

**ED-B 546 (1½) INTERPRETATION AND ANALYSIS OF LANGUAGE ARTS RESEARCH**

A critical review of research methodologies used in the general area of language arts. Consideration of the appropriateness of specific methodologies to research in classroom problems.

**ED-B 547 (3) ISSUES IN ENGLISH EDUCATION IN THE SECONDARY GRADES**

An extensive critical examination of issues in the learning and teaching of English in the secondary grades. (*Pre-or corequisite:* 541 or consent of instructor)

**ED-B 555A (1½) FOUNDATIONS OF CURRICULUM STUDIES**

Philosophical foundations in the study of education and curriculum: (1) conceptions of education and curriculum; (2) philosophical justifications of educational and curriculum practice; (3) historical perspectives; (4) criteria for judging education and curriculum practice; and (5) a personal stance.

**ED-B 555B (1½) FOUNDATIONS OF CURRICULUM STUDIES**

Further development and elaboration of topics in 555A. (*Prerequisite:* 555A)

**ED-B 556 (1½) CURRICULUM DEVELOPMENT**

A description of a variety of selected approaches to curriculum planning. This course aims to compare traditional Tylerian approaches to curriculum planning with alternative approaches in terms of their origins, underlying assumptions, utility in various settings, and effects. The course provides the students the opportunity to identify and characterize their own approaches to curriculum planning.

**ED-B 557 (1½) CURRICULUM IMPLEMENTATION**

A description of selected approaches to curriculum implementation. This course aims to describe and compare problems, practices, and models of implementing curriculum at institutional and individual levels and to provide students the opportunity to extract principles and procedures applicable to their own situations.

**ED-B 558 (1½) DEVELOPMENT AND IMPLEMENTATION OF THE CURRICULUM IN A SPECIFIC AREA**

Application of relevant theories and models to the design and development of school curricula in a specific area. (Students may enroll in more than one of the areas listed below at 1½ units each.)

558A Language

558B Reading

558C English

**ED-B 580 (1½) INTERPRETIVE RESEARCH METHODS**

A basic introduction to various forms of human science research such as ethnography and phenomenology with special emphasis on the use of qualitative methods to improve professional practice.

**ED-B 591 (1½ or 3) SELECTED TOPICS IN EDUCATION**

(This is a variable content course. Students will be permitted to take it more than once for credit to a maximum of six units, provided the course content is different from that previously taken. A Pro Forma indicating the title, content, and method of evaluation will be included in each student's portfolio.)

**ED-B 597 (0) COMPREHENSIVE EXAMINATION — COMMUNICATION AND SOCIAL FOUNDATIONS**

Comprehensive examination which must be passed as required for individual Master of Education programs within the Faculty of Education. (Grading: INP, COM, N or F)

**ED-B 598 (credit to be determined) PROJECT — COMMUNICATION AND SOCIAL FOUNDATIONS**

(Grading: INP, COM, N or F)

**ED-B 599 (credit to be determined) THESIS — COMMUNICATION AND SOCIAL FOUNDATIONS**

(Grading: INP, COM, N or F)

**ED-B 642 (3) ADVANCED PROCESSES OF READING**

Advanced study and research of the acquisition and development of reading competence with special attention to psycholinguistic and neurological processes. (*Prerequisite*: 542 or suitable equivalent)

**ED-B 643 (3) ADVANCED LANGUAGE PROCESSES IN THE SCHOOL CURRICULUM**

Advanced study and research of the processes through which competence and performance in listening, speaking, and writing are developed. (*Prerequisite*: 543 or suitable equivalent)

**ED-B 644 (3) RESEARCH FOUNDATIONS FOR REMEDIAL READING**

Critical review and analysis of research in diagnosis, correction and remediation of reading difficulties; criteria for appraising research findings; educational implications. (*Prerequisites*: 442 and 544 or suitable equivalents)

**ED-B 647 (3) ADVANCED COURSE IN SECONDARY ENGLISH EDUCATION**

Advanced study of the processes of learning English language and literature in the secondary grades. (*Prerequisite*: 547 or suitable equivalent)

**ED-B 649 (3) DOCTORAL SEMINAR IN ENGLISH LANGUAGE ARTS**

A seminar at the doctoral level to consider special problems in education and educational research. Seminars are organized around educational theory and practice in the English Language Arts.

**ED-B 690 (1½ or 3) INDIVIDUAL STUDIES — COMMUNICATION AND SOCIAL FOUNDATIONS**

Under the direction of program supervisors, topics in the area of research interests of doctoral students will be examined, leading to the development of background material for a Ph.D. dissertation. (*Prerequisites*: Appropriate prerequisites to be determined in specific instances) (May be taken more than once for credit providing the course content is different from that previously taken)

**ED-B 691 (1½ or 3) SPECIAL PROBLEMS — COMMUNICATION AND SOCIAL FOUNDATIONS**

Issues pertaining to students' research interests and faculty expertise will be examined. (*Prerequisites*: Appropriate prerequisites to be determined in specific instances) (May be taken more than once for credit providing content is different from that previously taken)

**ED-B 699 (30) PH.D. DISSERTATION — COMMUNICATION AND SOCIAL FOUNDATIONS**

(Grading: INP, COM, N or F)

## SCHOOL OF PHYSICAL EDUCATION

### UNDERGRADUATE COURSES

Professor M.C. Hibberson, Elementary and Secondary Adviser  
Dr. H.A. Wenger, Human Performance Adviser  
Dr. G.H. Van Gyn, Leisure Studies Adviser

**P E 104-132 BASIC SKILLS IN PHYSICAL EDUCATION ACTIVITIES**

The following courses are intended for students pursuing degrees in Physical Education (B.Ed., B.A., and B.Sc.). They are designed to develop each participant's level of performance, ability to analyze skills, and understanding of strategies or concepts. Priority will be given to students accepted into physical education programs and students planning to apply for programs in physical education. Other students may register for basic skills courses during the course change period for the term in which the course is offered. Registration is subject to availability of space; see course instructor for permission.

**NOTES:**

1. Not all activities may be offered every year.
2. Maximum credit for activities in degree programs offered by the Faculty of Education is specified on page 142.
3. Each activity course is scheduled for 24 hours of instruction. Students on Physical Education programs are expected to complete most of the required activity courses in the first two years.
4. Activity courses completed prior to September 1, 1975 will not receive credit.

**P E 104 (½) SPECIAL ACTIVITY**

With special permission, may be taken more than once for credit on a degree program

**P E 105 (½) SWIMMING****P E 106 (½) TRACK AND FIELD****P E 107 (½) GYMNASTICS: I****P E 108 (½) GYMNASTICS: II**

(*Prerequisite*: 107)

**P E 109 (½) RECREATIONAL DANCE****P E 110 (½) RHYTHMICS****P E 111 (½) CURLING****P E 112 (½) ARCHERY****P E 113 (½) GOLF****P E 114 (½) DANCE: I****P E 115 (½) FITNESS AND CONDITIONING****P E 116 (½) BADMINTON****P E 117 (½) TENNIS****P E 118 (½) WRESTLING****P E 119 (½) DANCE: II**

(*Prerequisite*: 114 or consent of instructor)

**P E 120 (½) BASKETBALL****P E 121 (½) SOCCER****P E 122 (½) VOLLEYBALL****P E 123 (½) RUGBY****P E 124 (½) FIELD HOCKEY****P E 125 (½) SOFTBALL****P E 126 (½) ORIENTEERING**

(User fee)

**P E 127 (½) CANOEING**

(User fee)

**P E 128 (½) CROSS COUNTRY SKIING**

(User fee)

**P E 129 (½) BACK PACKING**

(User fee)

**P E 130 (½) ROCK CLIMBING**

(User fee)

**P E 131 (½) SAILING**

(User fee)

**P E 132 (½) KAYAKING**

(User fee)

**P E 141 (1½) INTRODUCTORY HUMAN ANATOMY**

Lecture and laboratory orientation to human anatomy. Emphasis on the basic anatomical structures used in locomotion and fundamental motor skills. Reference made to the structural components of the circulatory, digestive, excretory and endocrine systems. Labs include examination and dissection of mammalian specimens, and extensive use of human skeletons, anatomical charts and models. (Not available for credit on a degree program for students who have already completed 242) (3-2)

**P E 142 (1½) HUMAN POTENTIAL**

An introduction to the physical, emotional and social aspects of human growth and human interpersonal relationships. (3-0)

**P E 143 (1½) INTRODUCTION TO PHYSICAL EDUCATION**

Orientation to the profession; the aims and objectives of physical education; relationship of physical education to education, athletics, health, recreation, and safety education. (3-0)

**P E 147 (2) PHYSICAL EDUCATION FOR GENERAL CLASSROOM TEACHERS (Elementary)**

Content of the Physical Education program in elementary school; principles, practice and techniques of instruction. (Not available for credit on a degree program for students who have already completed 149 or ED-C)

747) (*Prerequisite:* Authorization to register in the Faculty of Education or permission of the Education Advising Centre) (2-1)

**P E 241A (1½) INTRODUCTION TO HUMAN CELLULAR PHYSIOLOGY**

The study of the molecular and cellular functions in man with emphasis on homeostasis, cellular transport, protein synthesis, energy metabolism, electrical properties of cells, and blood as a tissue. (3-2)

**P E 241B (1½) INTRODUCTION TO HUMAN SYSTEMIC PHYSIOLOGY**

The study of the integrated functions of physiological systems with emphasis on the nervous, endocrine, muscular, cardiovascular and respiratory systems. (*Prerequisite:* 141 or consent of the instructor) (Not available for credit on a degree program for students who have already completed 242) (3-2)

**P E 243 (1½) FOUNDATIONS OF RECREATION AND LEISURE**

An introduction to the nature and scope of recreation; a consideration of past influences and future trends; the role of the recreational professional. (3-0)

**P E 244 (formerly 343) (1½) CANADIAN RECREATION DELIVERY SYSTEMS**

An overview of the development and delivery of recreational programs in Canada. Canadian federal, provincial, municipal, private and volunteer agencies are described and analyzed. (3-0)

**P E 252 (formerly 352) (1½, formerly 3) LEADERSHIP METHODS FOR RECREATION**

Methods of leadership and methods of teaching leisure skills. Classes will provide skills in presenting material to different age groups. Field experience is required as part of this course. (3-0)

**P E 253 (formerly 353 and half of 352) (1½) PROGRAM PLANNING FOR RECREATION**

An analysis of theoretical and practical approaches for developing effective recreation programs. (3-0)

**P E 270 (1½) FOUNDATIONS OF OUTDOOR RECREATION**

Study of the outdoor environment as an educational and recreational medium; survey of local outdoor recreational facilities; focus on planning, implementation and evaluation of outdoor programs, outdoor/environmental ethics and safety considerations; exploration of the relationship between outdoor pursuits and the leisure services. (3-0)

**P E 341 (1½) BIOMECHANICS (formerly Kinesiology)**

Analysis of human movement and performance. The relationship of the laws of physics concerning motion, force, inertia, levers, etc., to muscular and mechanical analysis of motor skills. (3-0)

**P E 342 (1½) HISTORY OF PHYSICAL EDUCATION (formerly History and Principles of Physical Education)**

Interpretative study and analysis of physical education and sport through their historical development; current trends, social and cultural implications; relationship to education. (3-0)

**P E 344 (1½) CARE AND PREVENTION OF ATHLETIC INJURIES**

Training techniques, protective equipment and strapping for the prevention of athletic injuries; emergency procedures and first aid practices for the treatment of athletic injuries; care and retraining of injured areas. Field experience is required as part of this course. (*Prerequisite:* 141 and 241B or equivalent) (3-0)

**P E 345 (1½) PHYSICAL EDUCATION IN EARLY CHILDHOOD**

Methods of teaching physical education activities to young children with emphasis on primary grades. Instructional techniques, activities, and curriculum development for this age group will be included. Field experience (approximately 10 hours) is required as part of this course. (*Prerequisites:* 147 or 149 or ED-C 747; and authorization to register in the Faculty of Education) (3-0)

**P E 346 (1½) MOTOR DEVELOPMENT AND PHYSICAL MATURATION**

An overview of motor development and maturation from the neonate to adulthood and old age. Special attention will be given to the growth and motor development characteristics of elementary and secondary school children. (No prerequisite required but a background in anatomy recommended) (3-0)

**P E 347 (1½) COMPARATIVE PHYSICAL EDUCATION**

An in depth study of physical education and sport systems in selected countries. (3-0)

**P E 348 (ED-D 348) (1½) PSYCHOLOGY OF SPORT**

An examination of the current findings in psychological research into sport and physical activity with special attention to personality characteristics of the performer, motivation for performance, cohesiveness, and spectator behaviour. (*Prerequisite:* PSYC 100) (2-2)

**P E 349 (1½) TEACHING PHYSICAL EDUCATION IN EARLY CHILDHOOD**

Techniques for teaching fundamental motor skills and activities to young children. Emphasis will be on primary grade children with special attention devoted to the appropriate scope and sequencing of skills and activities. (Not available for credit on a degree program for students who are taking a Physical Education teaching area or concentration or who have credit for PE 345) (Offered only during Summer Studies) (3-0)

**P E 354A (formerly 453A) (1½) ADMINISTRATION OF LEISURE SERVICES: I**

A review of general administrative and organizational theories with particular reference to their application in leisure service agencies. Topics include: the nature of administration, structure of organizations, leadership, supervision of workers and supervision of clients. (*Prerequisite:* 244) (3-0)

**P E 354B (formerly 453B) (1½) ADMINISTRATION OF LEISURE SERVICES: II**

A continuation of 354A, including budgeting, financial control, policy making, planning, goal setting, performance appraisal, public relations, meetings, office management, executive distress, and legal issues. (*Prerequisite:* 354A) (3-0)

**P E 356 (1½) PRINCIPLES OF FACILITY ADMINISTRATION**

Study of the concepts and processes of management as they apply to leisure service, recreation, fitness and health facilities. Emphasis on problem solving techniques used by administrators and managers in the planning, designing, controlling, financing, renovating and maintaining of such facilities. (3-0)

**P E 441 (1½) EXERCISE PHYSIOLOGY**

The anatomical and physiological adaptation of the human body to exercise and training; the relationship of exercise to hypokinetic diseases; nutrition of the athlete. (*Prerequisite:* 241A and B or 242) (2-2)

**P E 442 (1½) MOTOR LEARNING**

Implications of perceptual motor development for learning; psychology of motor skill acquisition. (*Prerequisite:* 3rd year standing in a Physical Education program) (2-2)

**P E 443 (1½) ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION**

Nature and function of administration; management of equipment and facilities; organization and management of programs of physical education and athletics; survey of the organization in Canadian schools. (*Prerequisites:* 4th year standing in a Physical Education program; and authorization to register in the Faculty of Education) (3-0)

**P E 444 (1½) MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION**

Use of laboratory and field tests in the assessment of physical performance and physique. Test administration and interpretation of results. (A background in physiology recommended) (2-2)

**P E 445 (1½) DEVELOPMENTAL AND ADAPTIVE PHYSICAL EDUCATION**

Methods of identifying and evaluating the atypical child and application of a physical education program to his needs; case study techniques, developmental programs; basic therapeutic exercise techniques. Field experience is required as part of this course. (3-0)

**P E 446 (1½) PHYSICAL EDUCATION IN THE INTERMEDIATE GRADES**

Methods of teaching physical education activities to intermediate grade children. Instructional techniques and curriculum development for this age group will be included. Field experience (approximately 10 hours) is required as part of this course. (*Prerequisites:* 147 or 149 or ED-C 747; and authorization to register in the Faculty of Education) (3-0)

**P E 447 (1½, formerly 3) (formerly 447B) COMMUNITY PROGRAMS IN HUMAN PERFORMANCE: SUPERVISED PRACTICUM**

Students are required to work in a community program which has as its focus a health, leisure, or sports service. The practicum will involve aspects of program planning and, where possible, direct leadership responsibilities. Emphasis will be placed on understanding the structure and function of community programs. (*Prerequisite*: 4th year standing in a Physical Education program; 253) (1-6)

**P E 448 (1½) TEACHING PHYSICAL EDUCATION IN THE INTERMEDIATE GRADES**

Techniques for teaching skills related to games, gymnastics and dance. Emphasis will be on intermediate grade children with special attention devoted to the appropriate scope and sequencing of skills and activities. (Not available for credit on a degree program for students who are taking a Physical Education teaching area or concentration or who have credit for PE 446) (Offered only during Summer Studies) (3-0)

**P E 449 (1½) PHYSICAL PARAMETERS OF AGING**

An overview of the anatomical and physiological changes associated with human aging. Relationships between hypokinetic (inactivity induced) disease, stress, and nutritional habits to aging and the merits of various intervention strategies. (3-0)

**P E 451 (1½) ADULT FITNESS AND EXERCISE MANAGEMENT**

A study of the theory and practice of adult physical fitness as it relates to health enhancement and preventive medicine. (3-0)

**P E 452 (3) INSTRUCTIONAL TECHNIQUES IN PHYSICAL EDUCATION ACTIVITIES (Secondary)**

Methods of teaching physical education activities to secondary school and related groups. Field experience is required as part of this course. (*Prerequisites*: Ten required activities from 104-132 or consent of instructor; and authorization to register in the Faculty of Education) (3-0)

**P E 454A (½) CONTEMPORARY ISSUES IN RECREATION: I**

Addresses the problems and challenges facing the recreation profession. (*Prerequisites*: Completion of three work terms in the Leisure Studies Program; and authorization to register in the Faculty of Education) (1-0)

**P E 454B (1) CONTEMPORARY ISSUES IN RECREATION: II**

Addresses the problems and challenges facing the recreation profession and attempts to provide a synthesis for the graduating student. (*Prerequisites*: Completion of 454A and four work terms in the Leisure Studies program or consent of instructor; and authorization to register in the Faculty of Education) (2-0)

**P E 461 (½) ADVANCED SKILLS AND OFFICIATING**

In depth study of skill areas selected by the student, including advanced skill performance and officiating to an approved level. (Students in a secondary program must register in three of the areas listed below at ½ unit each. A student may take all of the following areas; however, the maximum number of units accepted for credit on the student's degree program will be at the discretion of the School.) (*Prerequisite*: A grade of B or higher is required in the related 100 level course. 108 is recommended for Gymnastics) (NOTE: Not every area will be offered each year. Candidates are asked to consult the School of Physical Education before registering.) (1-0)

461A	Badminton	461G	Soccer
461B	Basketball	461J	Swimming
461C	Dance	461K	Tennis
461D	Field Hockey	461L	Track and Field
461E	Gymnastics	461M	Volleyball
461F	Rugby		

**P E 463 (½) COACHING**

Study of theory of coaching at a school level. The course will require practical experience in coaching in a sport of the student's choice. (Grading: INP; letter grade) (2-0)

**P E 470 (1½) OUTDOOR RECREATION (ADVANCED)**

Examination of outdoor recreation skills as a teaching medium; focus on professional outdoor recreation leadership skills, knowledge and techniques. (*Prerequisites*: 270 and three outdoor activities chosen from 126-132, or consent of instructor) (2-2)

**ED-C 480 (1½ or 3) CONTEMPORARY ISSUES IN EDUCATION — PHYSICAL EDUCATION**

Current topics and developments in education, with particular consideration of their relevance to the schools of British Columbia. This will be taught from an interdisciplinary approach. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-C 487 (1½ or 3) SPECIAL TOPICS IN EDUCATION — PHYSICAL EDUCATION**

Topics of current interest or concern to groups of students. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-C 494 (1½) DIRECTED STUDIES**

Research projects, directed reading, or additional course work in a specified area. (All students must obtain written approval from the Education Advising Centre before registering. Permission will not normally be given for more than three units of directed studies.)

494V Physical Education

**ED-C 495 (1½) DIRECTED STUDIES**

(Description as for 494)

**ED-C 499 (½-3) PROFESSIONAL DEVELOPMENT — PHYSICAL EDUCATION**

(This is a variable content course directed at improving specific teacher and/or administrator competencies. It will normally be offered off campus. Not more than 3 units of credit for any 499 courses may be approved as electives on an education degree program. Approval must be obtained from the Education Advising Centre.)

(Grading: COM, N, or F)

**ED-C 764 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — PHYSICAL EDUCATION**

Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean.

(Grading: INC; letter grade; INP)

## GRADUATE COURSES

Students should consult the Graduate Programs Office in the Faculty of Education concerning the courses offered in any particular year. Offerings will depend upon student program needs and the availability of instructors.

Dr. M.L. Collis, Adviser

**ED-C 540 (1½) RESEARCH IN CURRICULUM AND INSTRUCTION IN THE ELEMENTARY GRADES — PHYSICAL EDUCATION**

Review of the literature; critical analysis of significant research; planning curriculum research at the elementary school level.

**ED-C 541 (1½) RESEARCH IN CURRICULUM AND INSTRUCTION IN THE SECONDARY GRADES — PHYSICAL EDUCATION**

Review of the literature; critical analysis of significant research; planning curriculum research at the secondary level.

**ED-C 558 (1½) DEVELOPMENT AND IMPLEMENTATION OF THE CURRICULUM IN A SPECIFIC AREA — PHYSICAL EDUCATION**

Application of relevant theories and models to the design and development of school curricula in a specific area.

**ED-C 570 (1½) SKILL ACQUISITION IN PHYSICAL EDUCATION AND SPORT**

A review of learning theories and principles as they pertain to the acquisition and retention of motor skills; the neural mechanisms involved in the learning and control of motor patterns; information processing in human performance; detailed study of research on memory, attention, retrieval systems, and movement control.

**ED-C 571 (1½) PHYSICAL EDUCATION AND SPORT IN SOCIETY**

The following represent topics which may be studied in depth: socialization into sport; institutionalized aggression in sport; current social problems in Canadian sport; comparative sport; the social history of sport in

Canada; sport and international relations; the political economy of sport; a macrosociological view of sport development; social psychology of sport (motivation, personality, attitudes, social structure, group cohesion, and leadership).

**ED-C 572 (1½) PHYSIOLOGY IN PHYSICAL EDUCATION AND SPORT**

The study of physiological basis for sport performance and fitness. The assessment of physiological status and the rationale for the prescription of exercise programs. (*Prerequisite:* 441 or consent of instructor)

**ED-C 573 (3) RESEARCH PROCESSES IN PHYSICAL EDUCATION AND SPORT STUDIES**

Students are introduced to the varieties of research methods used in physical education and sport studies (e.g., physiological, psychological, sociological, historical).

**ED-C 574 (1½) ADMINISTRATION OF PHYSICAL EDUCATION, RECREATION AND SPORT**

After presenting a theoretical base for administrative and organizational theories, a link will be made to specific situations in the fields of physical education, recreation, and sport.

**ED-C 575 (1½) PSYCHOLOGICAL ASPECTS OF PHYSICAL EDUCATION AND SPORT**

A study of the interrelationships between psychological and physical factors which occur in the pursuit of physical activity and competitive sport, from birth to maturity. Topics will include aggression in sport; personality development through physical activity; attribution theory

and sport; motivation in sport; behavioural modification and physical activity; affiliation and sport; skill and mental achievement.

**ED-C 590 (credit to be determined) SPECIAL PROBLEMS — PHYSICAL EDUCATION**

(May be taken more than once for credit providing the course content is different from that previously taken. The student must obtain consent of the chairman of the student's supervisory committee and the instructor offering the area of individual study prior to registering in this course.)

**ED-C 591 (1½ or 3) SELECTED TOPICS IN EDUCATION**

(This is a variable content course. Students will be permitted to take it more than once for credit to maximum of six units, provided the course content is different from that previously taken. A Pro Forma indicating the title, content, and method of evaluation will be included in each student's portfolio.)

**ED-C 597 (0) COMPREHENSIVE EXAMINATION — PHYSICAL EDUCATION**

Comprehensive examination which must be passed as required for individual Master of Education programs within the Faculty of Education. (Grading: INP, COM, N or F)

**ED-C 598 (credit to be determined) PROJECT — PHYSICAL EDUCATION**

(Grading: INP, COM, N or F)

**ED-C 599 (credit to be determined) THESIS — PHYSICAL EDUCATION**

(Grading: INP, COM, N Or F)

## DEPARTMENT OF PSYCHOLOGICAL FOUNDATIONS IN EDUCATION

### UNDERGRADUATE COURSES

#### COMMUNICATION AND COUNSELLING

Dr. D.W. Knowles, Area Adviser

**ED-D 316 (1½) VERBAL COMMUNICATION**

Study of interpersonal verbal skills and processes. Skill practice and analyzed applications to classroom, counselling, family, social work and mental health. (3-0)

**ED-D 317 (1½) NONVERBAL COMMUNICATION**

Study of nonverbal interactions: movement, posture, gesture, qualities of voice, and spacing. Analysis of implications in teaching, counselling, family relations, mental health. (3-0)

**ED-D 414 (3) GROUP PROCESSES**

Analysis of group decision making; discovery and discussion methods in group learning; study of group interaction in classrooms, family life, counselling, and mental health. First portion of course is devoted to skill development, second part to analysis, theory and research. (3-0)

**ED-D 417 (3) HELPING RELATIONSHIPS**

Study of helping relationships in the classroom, counselling, family life, and mental health. Theories of personal effectiveness; analysis and practice of effective relating skills. The course is conducted as a participative seminar and includes skill building laboratory experience. (3-0)

**ED-D 418 (1½) COMPUTER ASSISTED CAREER COUNSELLING**

This course is designed to provide the theory, processes, and practice necessary for effective use of computer assistance in career counselling in education. (2-2)

**ED-D 433 (1½) PSYCHOLOGICAL EDUCATION**

A study of the concepts and practices of psychological education; examines how the school, family and community can mutually support the personal growth of individuals through educational means. (*Prerequisite:* 316 or 417) (3-0)

**ED-D 434 (1½) FAMILY EDUCATION AND CONSULTATION**

Topics include: current theories and practices in family life education and family counselling; school-community perspectives on family life education; use of potential resources for strengthening family life. (*Prerequisites:* 414 or 417 or consent of the instructor) (3-0)

**ED-D 435A (1½) PEER COUNSELLING**

An examination of the use of peers in the helping/learning process; topics include the theory and research on cross-age tutoring, peer helping, peer assisted learning, and peer counselling. Emphasis will be placed on skill building and training expertise necessary to organize and train a variety of peer groups in educational and community settings. (*Prerequisite:* 417 or 414 or 316 or consent of instructor) (Normally not offered on campus during winter session) (3-0)

**ED-D 435B (1½) PEER COUNSELLING: PROGRAM IMPLEMENTATION**

This course will cover the variety of strategies used to develop and implement a peer program. Topics such as initiating change, consulting with decision-makers, organizing support groups, creating an effective training curriculum and evaluation approaches will be examined. Participants will be expected to have direct access to community or education settings to implement program plans. (*Prerequisite:* 435A or consent of instructor) (Normally not offered on campus during winter session) (3-0)

#### LEARNING AND DEVELOPMENT

Dr. B. Timmons, Area Adviser

**ED-D 300 (formerly 200) (1½) INTRODUCTION TO EDUCATIONAL PSYCHOLOGY**

The application of psychological principles to elementary classroom practice. (Credit toward a program cannot be granted for more than one of 200, 200A, 200B, 300, 303 or 401.) (*Prerequisite:* PSYC 100. Authorization to register in the Faculty of Education or permission of the Education Advising Centre) (2-0)

**ED-D 305 (3) PSYCHOLOGY OF CHILDHOOD**

Mental, social, emotional and physical characteristics of preschool and elementary school pupils, their interests and problems; emphasis upon classroom implications. (*Prerequisite:* Authorization to register in the Faculty of Education or permission of the Education Advising Centre) (3-0)

**ED-D 306 (1½) ADVANCED EDUCATIONAL PSYCHOLOGY: CHILD DEVELOPMENT DURING THE PRESCHOOL YEARS**

An advanced course with special emphasis on early education; consideration of language, motor skills, and cognitive development, from birth to six years. Observation techniques, the interview, and other approaches to child study will be stressed. (*Prerequisite*: 305 or equivalent) (3-0)

**ED-D 348 (PE 348) (1½) PSYCHOLOGY OF SPORT**

An examination of the current findings in psychological research into sport and physical activity with special attention to personality characteristics of the performer, motivation for performance, cohesiveness, and spectator behaviour. (*Prerequisite*: PSYC 100) (2-2)

**ED-D 401 (formerly 303) (1½) INTRODUCTION TO PSYCHOLOGY OF CLASSROOM LEARNING**

An introduction to the psychology of learning in the secondary school. (Credit toward a program cannot be granted for more than one of 200, 200A, 200B, 300, 303 or 401) (3-0)

**ED-D 406 (3) PSYCHOLOGY OF ADOLESCENCE**

The physiological, psychological, social, and educational aspects of adolescence. (3-0)

**MEASUREMENT, EVALUATION AND COMPUTER APPLICATIONS IN EDUCATION**

Dr. W. Muir, Area Adviser

**ED-D 337 (1½) EVALUATION OF STUDENT ACHIEVEMENT**

The construction of classroom measures; including rating scales, self reports, check lists, performance tests, essay and objective tests, organization and use of measurement data. (*Pre-or corequisite*: Professional year) (3-0)

**ED-D 338 (1½) MICROCOMPUTERS IN THE CLASSROOM**

An introduction to the concepts and skills required by teachers for effective classroom microcomputer use; modes of computer aided learning; strategies for developing computer literacy. (*Prerequisite*: Professional year or consent of instructor) (3-0)

**ED-D 402 (1½) ASSESSMENT FOR SPECIAL EDUCATION**

A study of background factors important in selecting and administering standardized tests for the purpose of planning educational alternatives for individual students. Considerations will include test reliability, validity and norming, conditions of administration, and limits on interpretation. (*Prerequisite*: 337 or consent of instructor) (3-0)

**ED-D 438 (1½) MICROCOMPUTERS AND THE CURRICULUM**

Evaluation of educational software with an emphasis on integrating microcomputer use with curricula; creation of program materials; consideration of the effects of microcomputers on their users. (*Prerequisite*: 338 or consent of instructor) (3-0)

**SPECIAL EDUCATION**

Dr. D.G. Bachor, Area Adviser

**ED-D 400 (formerly 713) (1½) LEARNING DIFFICULTIES IN THE ELEMENTARY CLASSROOM**

An introduction to the nature, scope and recognition of learning difficulties commonly encountered in the elementary grades and a consideration of their treatment. Specific attention will be given to difficulties in number and reading skills. (Not available for degree credit for students who already have completed 415) (3-0)

**ED-D 405 (3) EDUCATIONAL EXCEPTIONALITY**

A consideration of the range of learning problems presented by children for whom classroom provisions may prove to be ineffective or inefficient; e.g., problems in motivation, attention, readiness, perception, response mobilization, retention, and learning rate. (*Prerequisite*: 200, 200A or 200B, 300 or PSYC 100) (3-0)

**ED-D 409A (1½) EDUCATION OF THE EXCEPTIONAL CHILD — THE GIFTED**

Identification procedures; early school admission and acceleration; setting goals for instruction; effective teaching methods; currently operating programs. (*Prerequisite*: Professional year) (3-0)

**ED-D 410A (1½) EDUCATION OF THE MENTALLY RETARDED**

A consideration of objectives, methods and materials in educating the mentally retarded, and of research evidence on instructional program effectiveness. (*Pre-or corequisites*: 405 or PSYC 450; professional year.) (NOTE: The professional year prerequisite is waived for students in the School of Child Care.) (Not available for credit on a degree program for students who have completed 410B) (3-0)

**ED-D 411 (1½ or 3) PROBLEMS OF ATTENTION AND BEHAVIOUR**

Supervised practice and/or theoretical considerations in working with children who present mild to severe problems in behaviour. (The course is offered in two sections, as described below, and only one of these is scheduled in any given session. Consult the Department for further information.) (*Pre-or corequisite*: Professional year) (NOTE: The professional year prerequisite is waived for students in the School of Child Care.)

ED-D 411A (1½) A consideration of objectives and methods in working with children who present mild to severe problems in behaviour. Strategies for working with individuals and groups are presented and evaluated. (Not available for credit on a degree program for students who have completed 411B) (3-0)

ED-D 411B (3) A consideration of objectives and methods in working with children who present mild to severe problems in behaviour. Strategies for working with individuals and groups are presented, evaluated and practised. Students enrolling in this course must reserve two one and a half hour periods in their timetables in either mornings or afternoons for the required practicum component. (Not available for credit on a degree program for students who have completed 411A) (2-2)

**ED-D 415 (3) DIAGNOSIS AND REMEDIATION OF LEARNING DIFFICULTIES**

A consideration of assessment strategies and instructional methods and materials appropriate for the identification and remediation of learning difficulties. (Students in this course must reserve three one hour periods in their timetables for the required practicum. During this practicum component, the concentration is on language arts and mathematics.) (It is recommended that students take the following courses first or concurrently with this course: 405, ED-B 442, ED-E 484.) (*Prerequisite*: Professional year) (NOTE: The professional year prerequisite is waived for students in the School of Child Care.) (3-3)

**ED-D 496 (1½) PRACTICUM IN SPECIFIED AREAS OF TEACHING**

Supervised practice in teaching children who learn inefficiently or ineffectively in regular classroom settings. A post session practicum in May normally will be required. (A student may take all of the following areas; however, the maximum number of units accepted for credit on a student's degree program will be at the discretion of the Education Advising Centre.)

- 496A Teaching the gifted child.  
*Pre-or corequisite*: 409A; professional year
- 496C Teaching the mentally retarded.  
*Pre-or corequisite*: 410A; professional year
- 496E Teaching the child with attention or behaviour problems.  
*Pre-or corequisite*: 411A; professional year
- 496F Teaching the child with learning disabilities.  
*Pre-or corequisite*: 415; professional year

(Students anticipating enrollment in 496 should make early inquiry to the Department of Psychological Foundations in Education to determine availability of supervisory personnel and school placement. In general, course activities require a time commitment of one half day per week throughout the second term.) (Grading: INC; COM, N, or F)

**SPECIAL STUDIES**

Contact individual Professors or Department Chairman for information.

**ED-D 480 (1½ or 3) CONTEMPORARY ISSUES IN EDUCATION — PSYCHOLOGICAL FOUNDATIONS**

Current topics and developments in education, with particular consideration of their relevance to the schools of British Columbia. This will be taught from an interdisciplinary approach. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-D 487 (1½ or 3) SPECIAL TOPICS IN EDUCATION — PSYCHOLOGICAL FOUNDATIONS**

Topics of current interest or concern to groups of students. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-D 494 (1½) DIRECTED STUDIES**

Research projects, directed reading, or additional course work in a specified area. (All students must obtain written approval from the Education Advising Centre before registering. Permission will not normally be given for more than three units of directed studies.)

494B Helping Profession  
494H Educational Psychology  
494S Special Education  
494W Remedial

**ED-D 495 (1½) DIRECTED STUDIES**

(Description as for 494)

**ED-D 499 (½-3) PROFESSIONAL DEVELOPMENT — PSYCHOLOGICAL FOUNDATIONS**

(This is a variable content course directed at improving specific teacher and/or administrator competencies. It will normally be offered off campus. Not more than 3 units of credit for any 499 courses may be approved as electives on an education degree program. Approval must be obtained from the Education Advising Centre.)

(Grading: COM, N, or F)

**GRADUATE COURSES**

Dr. R.A. Carr, Counselling Adviser

Dr. B. Harvey, Educational Psychology and Doctoral Adviser

Students should consult the Coordinator of Graduate Studies in the Faculty of Education concerning the courses offered in any particular year. Offerings will depend upon student program needs and the availability of instructors.

**ED-D 500 (1½) LEARNING PRINCIPLES**

A survey of the literature on commonly stated principles of instrumental and classical conditioning, generalization, transfer, and retention.

**ED-D 501 (1½) THEORY OF MEASUREMENT**

An elaboration of the principles and theories of educational and psychological measurement with particular emphasis on interpretation of test reviews, applications to test development, and the design of research studies.

**ED-D 502 (1½) SEMINAR IN EDUCATIONAL EVALUATION**

Advanced topics in educational evaluation including: curriculum evaluation, teacher evaluation, grading and reporting.

**ED-D 503 (1½) CURRICULUM EVALUATION**

An examination of the issues, practices, and models of curriculum evaluation at the institutional and classroom levels.

**ED-D 504 (1½) PSYCHOLOGY OF CONCEPTUAL LEARNING**

An analysis of the problems, methods, theoretical formulations, and experimental evidence in contemporary conceptual learning research.

**ED-D 505 (1½) BASIC CONCEPTS IN HUMAN DEVELOPMENT**

A survey of a number of well known schools and theorists in human development. Topics relating to cognitive, personality, and moral development are stressed. Student needs and interests are important in determining course content.

**ED-D 506 (1½) SELECTED TOPICS IN HUMAN DEVELOPMENT**

Recent theory and research in a number of specific areas of human development. This course constitutes a closer and more detailed study of certain of the broader areas dealt with in 505.

**ED-D 507 (1½) PSYCHOLOGY OF INDIVIDUAL DIFFERENCES**

A focus on intellectual, emotional, physical and cultural differences between individuals. Emphasis is given on how individuals differ, causation theories, and implications for education.

**ED-D 508 (1½) THEORIES OF LEARNING**

A survey of psychological interpretations of learning, comparing modern Behaviourist and Cognitive approaches; historical perspective also given.

**ED-D 509 (1½) PSYCHOLOGY OF CLASSROOM LEARNING**

An in depth analysis of selected issues in classroom learning. The effects of student and teacher characteristics, pedagogical methodologies, and evaluational strategies on student learning are the major interest areas.

**ED-D 510 (1½) PSYCHOLOGY OF GROUP DIFFERENCES**

Analysis of group differences in human abilities including historical background, classification and measurement methodology, correlates and educational implications.

**ED-D 512 (1½) MEASUREMENT IN THE AFFECTIVE DOMAIN**

Problems in selecting objectives in the affective domain; constructing instruments to assess interests, attitudes, appreciations and values.

**ED-D 513 (1½) USE OF STANDARDIZED TESTS IN EDUCATION**

Advanced study of the theory, purposes, uses, administration, scoring and interpretation of group tests commonly used in schools. Includes tests of aptitudes, achievement, interests, and personality. (Prerequisite: 337 or equivalent)

**ED-D 515 (1½) ADVANCED DIAGNOSIS OF LEARNING DISABILITIES**

An individualized course for graduate students specializing in diagnosis. Supervised observation and analysis of the intellectual, emotional, and educational problems of children with learning difficulties. (Prerequisite: 402, 415, or consent of instructor)

**ED-D 516 (1½) ADVANCED REMEDIATION OF LEARNING DISABILITIES**

An individualized course for graduate students specializing in the remediation of learning problems associated with physical, language, intellectual, emotional, and perceptual dysfunction. Observation, practice, and seminar discussion will be involved. (Prerequisite: 515 or consent of instructor)

**ED-D 517 (1½ or 3) PRACTICA IN COUNSELLING**

(May be taken once for credit in each of the areas listed below, normally to a maximum of 6 units, with a maximum of 3 units in each area. Prior to registration, a student is required to obtain consent from the instructor of the specific practicum and from the chairman of his or her supervisory committee.)

(Except for 517A and J, grading: INC, COM, N or F)

517A Prepracticum in Counselling  
517B Initial Practicum in Counselling  
517C Practicum in Child Counselling  
517D Practicum in Adolescent Counselling  
517E Practicum in Adult Counselling  
517F Practicum in Creative Arts Therapy  
517G Practicum in Community Agency Counselling  
517H Practicum in Family Counselling  
517J Prepracticum in Vocational Counselling  
(Corequisite: 519H)  
517K Practicum in Consultation  
(Pre-or corequisite: 519K)  
517L Practicum in College and University Counselling  
517M Practicum in Skill Training for Helpers

**ED-D 518 (1½) SEMINAR IN COUNSELLING PSYCHOLOGY**

Origin, development and data bases for counselling. Core elements in counselling. The life cycle, developmental needs and counselling. Contemporary counselling approaches.

**ED-D 519 (1½) ADVANCED SEMINARS IN COUNSELLING PSYCHOLOGY**

(May be taken once for credit in each of the areas listed below (1½ units each). Prior to registration, a student is required to obtain consent of the seminar instructor and from the chairman of his or her supervisory committee.)

519A	School Counselling
519B	Research in Counselling
519C	Professional Issues in Counselling
519D	Creative Arts Therapy
519E	Behavioural Counselling
519F	Human Science Counselling
519G	Relationship Counselling
519H	Career and Life Planning Counselling
519J	Peer Counselling in Education
519K	Consultation in Education and Counselling
519L	Group Counselling

**ED-D 520 (1½ or 3) EDUCATIONAL RESEARCH APPRENTICESHIP**

This course is intended to provide experience for students in conducting research, prior to designing and implementing their own thesis studies. Examples might include collaboration with other students in a joint research effort; replicating earlier studies; or carrying out research principally conceptualized by, and supervised by, an individual professor. (May be taken more than once for credit with approval of the student's supervisory committee)

**ED-D 560 (1½) STATISTICAL METHODS IN EDUCATION**

Probability theory; sampling theory; estimation; tests of hypotheses; the distribution; analysis of variance; analysis of covariance; nonparametric statistics; introduction to computer applications. (Offered conjointly with 561)

**ED-D 561 (1½) METHODS IN EDUCATIONAL RESEARCH**

The role of research in education; selecting the problem; reviewing the literature; research hypotheses; problems in measurement; sources of invalidity; models and designs in research; writing research proposals, communicating the results of research. (Offered conjointly with 560)

**ED-D 562 (1½) ADVANCED STATISTICAL METHODS IN EDUCATION**

Applied multiple linear regression; factor analysis; discriminant function analysis; canonical correlation; multivariate analysis of variance; advanced computer data processing. (*Prerequisite:* 560 or equivalent)

**ED-D 565 (1½) TASK ANALYSIS AND PRECISION TEACHING**

Task analysis models and applications; systematic description and assessment of terminal and enroute behavioural objectives; writing individual instructional plans.

**ED-D 566 (1½) SEMINAR IN SPECIAL EDUCATION**

A consideration of historical perspectives and present trends in special education services; funding policies; mainstreaming and zero rejection; training and utilization of aides and volunteers; parent participation in education planning. Preparation and defence of a major position paper on some important issue affecting special education will be required. (Grading: INC or letter grade. A grade of INC will require reregistration in the course in the following term.)

**ED-D 590 (credit to be determined) SPECIAL PROBLEMS — PSYCHOLOGICAL FOUNDATIONS**

(May be taken more than once for credit providing the course content is different from that previously taken. The student must obtain consent of the chairman of the student's supervisory committee and the instructor offering the area of individual study prior to registering in this course.)

**ED-D 591 (1½ or 3) SELECTED TOPICS IN EDUCATION**

(This is a variable content course. Students will be permitted to take it more than once for credit to a maximum of six units, providing the course content is different from that previously taken. A Pro Forma indicating the title, content, and method of evaluation will be included in each student's portfolio.)

**ED-D 597 (0) COMPREHENSIVE EXAMINATION — PSYCHOLOGICAL FOUNDATIONS**

Comprehensive examination which must be passed as required for individual Master of Education programs within the Faculty of Education. (Grading: INP, COM, N or F)

**ED-D 598 (credit to be determined) PROJECT — PSYCHOLOGICAL FOUNDATIONS**

(Grading: INP, COM, N or F)

**ED-D 599 (credit to be determined) THESIS — PSYCHOLOGICAL FOUNDATIONS**

(Grading: INP, COM, N or F)

**ED-D 617 (credit to be determined) INTERNSHIP IN COUNSELLING PSYCHOLOGY**

Field work and advanced practical experience under supervision for doctoral candidates specializing in counselling psychology. (May be taken more than once for credit with approval of the student's supervisory committee.)

**ED-D 618 (credit to be determined) DOCTORAL SEMINARS IN COUNSELLING PSYCHOLOGY**

The doctoral seminars are organized around professional studies in counselling; counselling theory and techniques; group procedures and processes; areas of critical life choice; professional identification; ethics; and research in counselling. The seminars may be taken more than once for credit, providing the course content is different from that previously taken, by doctoral candidates upon consultation with the student's supervisory committee. The specific content of each area will be designated prior to registration.

**ED-D 690 (credit to be determined) SPECIAL PROBLEMS**

(May be taken more than once for credit providing the course content is different from that previously taken. The student must obtain consent of the chairman of his or her supervisory committee and the instructor offering the area of individual study prior to registering in 690.)

**ED-D 699 (credit to be determined) Ph.D. DISSERTATION**

(Grading: INP, COM, N or F)

## DEPARTMENT OF SOCIAL AND NATURAL SCIENCES

### UNDERGRADUATE COURSES

#### MATHEMATICS EDUCATION

Dr. W. Liedtke, Elementary Adviser, Primary  
Dr. J. Vance, Elementary Adviser, Intermediate  
Dr. I. Burbank, Secondary Adviser

**ED-E 343 (1½) MATHEMATICS: A HUMAN ENDEAVOUR**

A study of the foundations and processes of mathematics for elementary

and middle school teachers. Topics include: the nature and history of mathematics; mathematical thinking and processes; and problem solving strategies and skills. (*Prerequisites:* Math 160A and 160B or equivalent) (3-0)

**ED-E 443 (1½) MATHEMATICS CURRICULUM IN THE ELEMENTARY SCHOOL**

Goals of mathematics learning; evaluation and use of textbooks, supplementary and enrichment materials, games, concrete aids; individualized small group, and large group instructional settings; evaluation of learning; current issues and trends. (*Prerequisite:* Professional year) (3-0)

**ED-E 444 (1½) MATHEMATICS INSTRUCTION IN THE ELEMENTARY SCHOOL**

Teaching strategies; learning activities; classroom organization; instructional materials, their function and use; laboratory methods. (Prerequisite: Professional year) (3-0)

**ED-E 484 (1½) DIAGNOSIS AND REMEDIATION IN MATHEMATICS**

Possible causes of difficulty; teacher made diagnostic tasks and tests; analysis of common errors; remediation strategies; mini case studies. (Prerequisite: Professional year) (3-0)

**ED-E 743 (2) CURRICULUM AND INSTRUCTION IN MATHEMATICS IN THE ELEMENTARY SCHOOL**

An examination of the mathematics curriculum and instructional procedures for teaching mathematics; scope and sequence, objectives, classroom settings, teaching strategies, manipulative aids, learning activities, and evaluation procedures. (Prerequisite: Acceptance in a professional year) (1-2)

**ED-E 761 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — MATHEMATICS**

Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean. (Grading: INC; letter grade; INP)

**SCIENCE EDUCATION**

Dr. G. Snively, Elementary Adviser  
Professor J. Sheppy, Secondary Adviser

**ED-E 145A (1½) PHYSICAL SCIENCE**

Topics from physics as applied in the elementary school science curriculum; focus is on general understanding of principles and concepts. (2-2)

**ED-E 145B (1½) EARTH SCIENCE**

Topics from astronomy, geology, meteorology and oceanography as applied in the elementary school science curriculum; focus is on general understanding of principles and concepts. (2-2)

**ED-E 145C (1½) BIOLOGICAL SCIENCE**

Topics from biology and ecology as applied in the elementary school science curriculum; focus is on general understanding of principles and concepts. (One of PE 141, 241A, or 241B is acceptable in lieu of 145C on the elementary degree program.) (2-2)

**ED-E 345A (formerly half of 345) (1½) SELECTED TOPICS IN GENERAL SCIENCE**

Topics selected from astronomy, biology, chemistry, geology, physics, and the nature and history of science will be studied. Topics will be selected for their relevance to elementary science education. (Prerequisite: two of 145A, B or C or their equivalents) (2-2)

**ED-E 345B (formerly half of 345) (1½) SCIENCE-TECHNOLOGY-SOCIETY ISSUES IN SCIENCE EDUCATION**

The interplay of science, technology and society with special reference to the Canadian context. The influence of such issues on elementary and secondary science curricula. Consideration of instructional approaches to issues in school science. Canadian contributions to the growth of science will be studied. (2-2)

**ED-E 373 (1½) ENVIRONMENTAL EDUCATION**

An introductory course which will focus on the major ecosystems in British Columbia. The course will lend itself to a multidisciplinary approach and should be of interest to teachers of all subjects and grade levels. Topics will include: man's impact on the ecosystem; goals for environmental and outdoor education; current issues and trends; teaching strategies; program and curriculum development and evaluation. Selected fieldtrips to a variety of locations in B.C. (Not available for credit to students who have already completed 374) (2-2)

**ED-E 445A (formerly half of 445) (1½) SCIENCE INSTRUCTION IN THE ELEMENTARY SCHOOL**

Topics considered will include inquiry teaching, children's science learning, compatibility of teaching strategies and learning styles, teaching thinking skills in science, and research on science instruction. (Prerequisite: Professional year) (3-0)

**ED-E 445B (formerly half of 445) (1½) CONTEMPORARY ISSUES IN ELEMENTARY SCIENCE CURRICULA**

Topics considered will include goals for science teaching, societal influences, current curricula, modifying existing curricula, future trends, evaluation of science learning, and implementing curricular changes. (Prerequisite: Professional year) (3-0)

**ED-E 745 (2) CURRICULUM AND INSTRUCTION IN ELEMENTARY SCIENCE**

A study of the curriculum organization and techniques of instruction in elementary science. The course will include consideration of both the content and strategies for teaching elementary health education. (Prerequisite: Acceptance in a professional year) (1-2)

**ED-E 769 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — SCIENCE**

Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean. (Students with teaching areas in biology, chemistry, physics, or general science will enroll in this course.) (Grading: INC; letter grade; INP)

**SOCIAL STUDIES EDUCATION**

Dr. W. K. Cross, Elementary Adviser  
Dr. P. Thomas, Secondary Adviser

**ED-E 346 (1½ formerly 3) SOCIAL STUDIES IN THE ELEMENTARY SCHOOL**

A study of the concepts, processes and their development within contemporary curricula for elementary school social studies. An interdisciplinary social studies exploration of the central themes will consider the family, the community, the interactions of families, communities and environment, the cultures, and the ethnic composite of Canada. (3-0)

**ED-E 446 (formerly half of 346) APPROACHES IN TEACHING THE SOCIAL STUDIES CURRICULUM (1-7)**

Research trends, learning approaches and instructional strategies will be examined in depth as they apply to the Social Studies curriculum. (Prerequisite: Professional year or permission of instructor) (3-0)

**ED-E 746 (1½) CURRICULUM AND INSTRUCTION IN ELEMENTARY SOCIAL STUDIES**

A study of the curriculum organization and techniques of instruction in elementary social studies. Examples are drawn from a variety of content areas: history, geography, anthropology, sociology, political science, economics and community services including health. (Prerequisite: Acceptance in a professional year) (2-0)

**ED-E 755 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — GEOGRAPHY**

Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean. (Grading: INC; letter grade; INP)

**ED-E 758 (3-4½) CURRICULUM, INSTRUCTION AND PRACTICUM IN SECONDARY SCHOOL SUBJECTS — HISTORY**

Open to students who have completed the prescribed teaching area or who have special permission of the Education Advising Centre. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean. (Grading: INC; letter grade; INP)

**SPECIAL STUDIES**

Contact individual professors or Department Chairman for information.

**ED-E 438A (1½) COMPUTER APPLICATIONS IN THE INSTRUCTION OF ELEMENTARY SCHOOL MATHEMATICS, SCIENCE AND SOCIAL STUDIES**

Advanced study of specific instructional applications of the microcomputer to the teaching and learning of elementary school mathematics, science and social studies. Consideration is given to whole class, small group and individual use of microcomputers and appropriate software. Topics include: Logo, problem solving, graphing, time lines, direct data storage and retrieval, report writing, mapping and data banks. Emphasis will be given to advanced uses of the microcomputer other than drill and practice. (Prerequisite: Professional Year and ED-D 338 or equivalent) (2-2)

**ED-E 447 (1½) MATHEMATICS, SCIENCE AND SOCIAL STUDIES IN EARLY CHILDHOOD EDUCATION**

A survey of mathematics, science and social studies content, materials, methods suitable for children from ages three to six. (*Prerequisite:* ED-B 440 or consent of instructor; professional year) (3-0)

**ED-E 480 (1½ or 3) CONTEMPORARY ISSUES IN EDUCATION — SOCIAL AND NATURAL SCIENCES**

Current topics and developments in education, with particular consideration of their relevance to the schools of British Columbia. This will be taught from an interdisciplinary approach. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-E 487 (1½ or 3) SPECIAL TOPICS IN EDUCATION — SOCIAL AND NATURAL SCIENCES**

Topics of current interest or concern to groups of students. (With permission of the Education Advising Centre may be taken more than once for credit on a degree program) (3-0)

**ED-E 494 (1½) DIRECTED STUDIES**

Research projects, directed reading, or additional course work in a specified area. (All students must obtain written approval from the Education Advising Centre before registering. Permission will not normally be given for more than three units of directed studies.)

494M	Teaching of Geography
494N	Teaching of History
494P	Social Studies
494R	Mathematics Education
494U	Outdoor Education
494X	Science Education

**ED-E 495 (1½) DIRECTED STUDIES**

(Description as for 494)

**ED-E 499 (½-3) PROFESSIONAL DEVELOPMENT — SOCIAL AND NATURAL SCIENCES**

(This is a variable content course directed at improving specific teacher and/or administrator competencies. It will normally be offered off campus. Not more than 3 units of credit for any 499 courses may be approved as electives on an education degree program. Approval must be obtained from the Education Advising Centre.)

(Grading: COM, N or F)

**GRADUATE COURSES**

Students should consult the Graduate Programs Office in the Faculty of Education concerning the courses offered in any particular year. Offerings will depend upon student program needs and the availability of instructors.

Dr. J. Vance, Graduate Adviser

**ED-E 540 (1½) RESEARCH IN CURRICULUM AND INSTRUCTION IN THE ELEMENTARY GRADES**

Review of the literature; critical analysis of significant research; planning curriculum research at the elementary school level. (Students may enroll

in more than one of the areas listed below at 1½ units each.)

540C	Social Studies
540D	Mathematics
540E	Science

**ED-E 541 (1½) RESEARCH IN CURRICULUM AND INSTRUCTION IN THE SECONDARY GRADES**

Review of the literature; critical analysis of significant research; planning curriculum research at the secondary level. (Students may enroll in more than one of the areas listed below at 1½ units each.)

541B	Geography
541C	History
541D	Mathematics
541E	Science

**ED-E 558 (1½) DEVELOPMENT AND IMPLEMENTATION OF THE CURRICULUM IN A SPECIFIC AREA**

Application of relevant theories and models to the design and development of school curricula in a specified area. (Students may enroll in more than one of the areas listed below at 1½ units each.)

558C	Social Studies
558D	Mathematics
558E	Science
558H	Geography
558J	History

**ED-E 584 (1½) MATHEMATICS EDUCATION FOR EXCEPTIONAL STUDENTS**

A compendium of diagnostic models and teaching or remediation strategies for the following categories: Perceptual and Cognitive Processing Deficits; Socially and Emotionally Impaired; Slow Learning and Mentally Retarded; Visually Impaired; Deaf or Hard of Hearing. (*Prerequisite:* 484 or consent of the instructor)

**ED-E 590 (credit to be determined) SPECIAL PROBLEMS — SOCIAL AND NATURAL SCIENCES**

(May be taken more than once for credit providing the course content is different from that previously taken. The student must obtain consent of the chairman of the student's supervisory committee and the instructor offering the area of individual study prior to registering in this course.)

**ED-E 591 (1½ or 3) SELECTED TOPICS IN EDUCATION**

(This is a variable content course. Students will be permitted to take it more than once for credit to a maximum of six units, provided the course content is different from that previously taken. A Pro Forma indicating the title, content, and method of evaluation will be included in each student's portfolio.)

**ED-E 597 (0) COMPREHENSIVE EXAMINATION — SOCIAL AND NATURAL SCIENCES**

Comprehensive examination which must be passed as required for individual Master of Education programs within the Faculty of Education.

(Grading: INP, COM, N or F)

**ED-E 598 (credit to be determined) PROJECT — SOCIAL AND NATURAL SCIENCES**

(Grading: INP, COM, N or F)

**ED-E 599 (credit to be determined) THESIS — SOCIAL AND NATURAL SCIENCES**

(Grading: INP, COM, N or F)

**DIVISION OF PROFESSIONAL STUDIES**

All courses which have a practicum component are governed by the "Regulations Concerning Practica", page 14 and 142 of this calendar. No course containing school experience practica may be challenged. Students are directed to the section, "School Experience, Student Teaching and Seminars" on page 137 of this calendar. Further, students who wish to repeat 797 must appeal to the Faculty Admissions and Adjudication Committee for permission.

**SCHOOL EXPERIENCE****ED-P 197 (1½) FIRST YEAR ELEMENTARY SEMINAR AND SCHOOL EXPERIENCE**

This course deals with communication skills and interpersonal relations

in teaching. (Seminars will be held twice weekly in the First or Second Term. Normally students will be required to have a two week school experience following examinations in April. Transfer students taking 197 and 297 in the same academic year must complete ten weekly half day experiences in the schools in the fall as well as meeting the 297 school experience requirements in the spring) (Grading: INC; COM, N or F)

**ED-P 297 (1½) PREPROFESSIONAL YEAR ELEMENTARY SEMINAR AND SCHOOL EXPERIENCE**

Weekly seminars dealing with formal analysis of teaching and acquisition of selected teaching skills, plus a minimum of 20 hours of microteaching. Skills are applied during school experience activities. A two week post session practicum following final examinations is re-

quired. (*Prerequisite:* 197 or permission of the Division of Professional Studies. Authorization to register in the Faculty of Education or permission of the Education Advising Centre) (Grading: INC; COM, N or F)

**ED-P 397 (1½ or 3) SPECIAL PREPROFESSIONAL YEAR  
ELEMENTARY SEMINAR AND SCHOOL EXPERIENCE**

A seminar to be conducted prior to the professional year that will deal with the examination and acquisition of skills specific to the needs of special situations. The course will include experiences in the special setting. (Grading: INC; COM, N or F)

**ED-P 398 (1½) THIRD YEAR SECONDARY SEMINAR AND SCHOOL EXPERIENCE**

A program of regularly scheduled seminars in which students will receive some instruction in methodology as preparation for visits to secondary school classrooms. (Students must complete ten weekly half day experiences in the schools. A two week post session practicum may be required. This requirement may be modified for students on special programs.) (Grading: INC; COM, N or F)

**ED-P 498 (1½) FOURTH YEAR SECONDARY SEMINAR**

A program of seminars and school experiences prerequisite to the secondary methodology courses. (A two week post session practicum following final examinations is required. This requirement may be modified for students on special programs.) (*Prerequisite:* 398) (Grading: INC; COM, N, or F)

**ED-P 797 (3) SEMINAR AND ELEMENTARY STUDENT TEACHING**

For students registered in the professional year, elementary program. Consists of a weekly seminar and school experience to be arranged by the School Experience Office. Initial school experiences will occur during the first week of the term. Students will be denied the practicum experience (fall or spring) if their preparatory work is considered unsatisfactory by the Dean. (Grading: INC; letter grade; INP)

**PROFESSIONAL COURSES**

**ED-P 777 (1½) INTRODUCTION TO TEACHING METHODS**

General introduction to curriculum and instruction in secondary school subjects. (Offered to internship students only.) (Grading: INC; COM, N or F)

**ED-P 789 (6) INTEGRATED PROGRAM IN ELEMENTARY CURRICULUM AND METHODOLOGY**

An integrated program in current curriculum developments and methods of instruction for elementary teachers who wish to update their professional training or for experienced secondary teachers who are considering teaching at the elementary level. Credit towards a degree may be used only for updating of professional training completed more than ten years previously. Credit for this course cannot be used for elective credit on a current degree program. (*Prerequisite:* Consent of the Education Advising Centre) (Lectures and laboratories: hours to be arranged)

**ED-P 790 (1½) TEACHING SKILLS SEMINAR: SECONDARY**

The study, performance and evaluation of teaching skills essential to

teacher performance at the secondary level. Skills will be practised and evaluated through peer interaction. (*Prerequisite:* Acceptance in the Secondary Post Degree Professional Program)

(Grading: INC; COM, N or F)  
(3-0)

**ED-P 792 (½) SECONDARY CAREER SEMINAR**

Forum for discussion on teaching and general class management. (*Prerequisite:* Acceptance in a professional year)

(Grading: INC; COM, N or F)  
(1-0)

**ED-P 793 (1½) INTERNSHIP SEMINAR**

Seminar on teaching competencies. Topics will include teaching skills, classroom management, relationship of theory to practice, analysis of teaching, the teacher as a professional, and education community orientation. (*Prerequisite:* Acceptance in a professional year)

(1-0)  
(Grading: INC; COM, N or F)

**ED-P 799A (9) INTEGRATED PROFESSIONAL PROGRAM (Regular)**

Historical and Social Foundations; Administration and Management of Education in B.C.; Measurement and Evaluation; Learning Resources; Reading in the Secondary Schools; Career Seminar. (*Prerequisite:* Acceptance in a professional year)

(Grading: INC; letter grade)  
(18-0) or (9-0; 9-0)

**ED-P 799B (12) INTEGRATED PROFESSIONAL PROGRAM (Post-Degree Professional Program)**

Historical and Social Foundations; Administration and Management of Education in B.C.; Psychology of Classroom Learning; Psychology of Adolescence; Measurement and Evaluation; Media Education; Library Education; Directed Media or Library Project. (*Prerequisite:* Acceptance in a professional year)

(Grading: INC; letter grade)  
(24-0 first term; practicum second term)

**SPECIAL STUDIES**

Contact the Division Director for information.

**ED-P 494 (1½) DIRECTED STUDIES**

Research projects, directed reading, or additional course work in a specified area. (All students must obtain written approval from the Education Advising Centre before registering. Permission will not normally be given for more than three units of directed studies.)

494Y Student Teaching

**ED-P 495 (1½) DIRECTED STUDIES**

(Description as for 494)

**ED-P 499 (½-3) PROFESSIONAL DEVELOPMENT — PROFESSIONAL STUDIES**

This is a variable content course directed at improving specific teacher and/or administrator competencies. It will normally be offered off campus. Not more than 3 units of credit for any 499 courses may be approved as electives on an education degree program. Approval must be obtained from the Education Advising Centre.

(Grading: COM, N, or F)

# FACULTY OF ENGINEERING

Eric G. Manning, B.Sc., M.Sc. (Wat.), Ph.D. (Ill.), F.I.E.E.E., P.Eng.,  
Dean of the Faculty  
Barry W. Brooks, B.Sc., M.Sc. (Calg.), P. Eng., Cooperative Education  
Coordinator and Assistant to the Dean  
George Csanyi-Fritz, P.Eng., Faculty Engineer  
Gary F. Duncan, B.Sc. (U. of Vic.), M.Sc. (Tor.), Senior Programmer  
Analyst  
Louise A. Egan, B.Sc. (Qu.), M.Eng. (McM.), P. Eng., Cooperative Educa-  
tion Coordinator  
Ian Main, B.A.Sc. (Wat.), Cooperative Education Coordinator  
P. Lawrence Pitt, B.Sc., M.Sc. (Alberta), Cooperative Education Co-  
ordinator

## UNDERGRADUATE PROGRAMS

The Faculty of Engineering offers B.Eng. degrees in Electrical Engineering, Computer Engineering and Mechanical Engineering. All degree programs are designed to meet the accreditation requirements of the Canadian Accreditation Board of the Canadian Council of Professional Engineers, although accreditation has not yet been received. The programs will be evaluated during the final year of the the first graduating class (1987-88 for the B. Eng. programs in Electrical Engineering and Computer Engineering, and 1991-92 for the B.Eng. program in Mechanical Engineering). These requirements ensure that graduates of the programs satisfy the academic requirements for registration with the provincial Associations of Professional Engineers.

The above degree programs are offered in conjunction with the Engineering Cooperative Education Program in the Faculty of Engineering, details of which are to be found below under the heading Engineering Cooperative Education Program. Completion of the undergraduate baccalaureate programs involves eight academic terms and six work terms in industry where each term is of four months duration.

## APPLICATION FOR ADMISSION

The normal procedure is to admit students into the Faculty to commence First Year Engineering in the September-December term each year.

Application forms for undergraduate admission to the Faculty of Engineering are available from Admission Services. Completed applications must be submitted to Admission Services not later than May 31. Applicants will receive written acknowledgement that their application for admission to the Faculty has been received by Admission Services and confirmation that their admission file is complete.

## INTERNATIONAL STUDENTS

The university has a primary obligation to permanent residents of Canada. Nevertheless, a limited number of international students may be admitted to the Faculty.

## RESTRICTIONS ON ADMISSION

There are restrictions on the number of students that can be admitted to First Year Engineering and to Second Year Engineering. Achievement of the minimum academic requirements may not provide assurance of admission.

## REQUIREMENTS FOR ADMISSION

Applicants must meet the University of Victoria admission requirements as given under the heading General Information on pages 7-11. Additional admission requirements are given below.

Graduates of senior secondary schools in British Columbia require:

- 1) A grade of not less than B in Algebra and Physics 12, and
- 2) Chemistry 11 or Chemistry 12.

Graduates of senior secondary schools in Canadian provinces other than British Columbia require equivalent qualifications in algebra, physics and chemistry to those specified above and are advised to contact Admission Services for further information on recognition of their secondary school performance.

Applicants who have completed First Year Science at a university or college are eligible to be considered for admission.

A limited number of mature applicants may be admitted notwithstanding the fact that they might not meet the minimum requirements for admission if, in the judgment of the Faculty, compensatory experience has been obtained.

## READMISSION AFTER VOLUNTARY WITHDRAWAL

Students who have withdrawn voluntarily from the Faculty of Engineering and later reapply for admission must do so by the prescribed deadlines and will be considered in competition with all other applicants.

## TRANSFER CREDIT

The Faculty of Engineering may grant credit to applicants for courses taken in other postsecondary educational programs. Credit will be considered only for courses which are approximately equivalent to courses in the Engineering programs and in which satisfactory performance has been achieved.

Applicants who have completed First Year Science and First Year Engineering at Malaspina, Cariboo, New Caledonia, Okanagan or Selkirk College, or Simon Fraser University are eligible to be considered for admission to Second Year Engineering provided that they have obtained an overall grade point average (GPA) of not less than 2.50 on a 4.00 scale.

Graduates of technology programs will be considered for transfer credit on an individual basis.

## REGULATIONS ON ACADEMIC PERFORMANCE

### 1. Grading

The grading scheme used in the Faculty of Engineering is the same as that found under the heading General Information except for a somewhat different interpretation of the C, D and DEF grades.

A grade of C in a course implies that a satisfactory performance has been achieved.

A grade of D in a course implies that a weak but marginally acceptable performance has been achieved. While a D grade is a pass grade, an accumulation of D grades during a review period may lead to Probationary or Failed Standing.

Grade DEF is used for courses in which a deferred examination has been granted on the basis of illness, family affliction or other similar circumstances. Please consult Section 5 of these regulations for Engineering courses and the general University regulations on page 16 for nonengineering courses.

### 2. Review of an Assigned Grade in Engineering Courses

- a) Any request for a review of a final grade must normally reach the Dean's office within 21 days after the release of assigned grades by the Dean's office.
- b) The review of a final grade shall be restricted to grade components contributed by a final examination, and to any other grade components released to the student within the last 21 days before the end of classes.

### 3. Academic Terms and Academic Years

The program consists of eight academic terms. Each of the four academic years in the Faculty of Engineering consists of two academic terms, referred to in Table I as Academic Term A and Academic Term B. These academic terms are taught in the September-December term, the January-April term, or the May-August term, with the corresponding Final Examinations for term courses occurring at the end of each term.

The timetable for academic terms and work (COOP) terms is summarized in Table I.

TABLE I

Year	September-December	January-April	May-August
1	Academic Term 1A	Academic Term 1B	Work Term W1
2	Academic Term 2A	Work Term W2	Academic Term 2B
3	Work Term W3	Academic Term 3A	Work Term W4
4	Academic Term 3B	Work Term W5	Academic Term 4A
5	Work Term W6	Academic Term 4B	

#### 4. Review of Academic Performance

The following regulations are in terms of grades in single term courses offered in the September-December, January-April or May-August term.

The academic standing of each student registered in the Faculty of Engineering will be reviewed annually following the January-April term. Students will receive Satisfactory Standing, Probationary Standing or Failed Standing if they registered in at least four courses during the period under review.

Student performance is assessed on the basis of the grade point average and the number of grades of C or better accumulated over the review period.

The grade point average is calculated by adding the grade point values of all the grades awarded during the period under review and dividing the sum by the total number of grades. DEF grades will be excluded from the calculation. Grades obtained in supplemental examinations will be treated as additional grades in the recalculation of the grade point average.

The specific regulations for the Faculty of Engineering are as follows:

- Upon completion of an academic term in which the student registered for not less than four courses for the first time, that student may register for six courses in the following academic term, provided that a grade of C or better was achieved in each of at least two thirds of the courses taken by the student. The required minimum number of courses having grades of C or better is given in Table II.

Students who do not satisfy the above requirements will have their program determined by the Dean of Engineering.

- Student standings are defined as follows:

##### *Satisfactory Standing*

A grade point average of not less than 2.00 and a grade of C or better in each of at least two thirds of the courses taken by the student during the period under review with no more than one uncleared failing grade. The required minimum number of courses with grades of C or better is given in Table II.

##### *Probationary Standing*

A grade of C or better in each of at least one half of the courses taken by the student during the period under review with no more than two uncleared failing grades. The required minimum number of courses with grades of C or better is given in Table III.

##### *Failed Standing*

Failure to meet the criteria for Satisfactory or Probationary Standing or two consecutive assessments of Probationary Standing.

- Students with Satisfactory Standing may proceed in the program and must attempt to clear any uncleared failing grade during the next reviewing period.
- Students with Probationary Standing may remain in the program for a period of up to one year subject to the following conditions:
  - They must repeat all courses for which D grades were obtained during the period under review.
  - They must not register for more than six courses per term.
  - They must achieve Satisfactory Standing at the time of the next review.
- Students with Failed Standing will be required to withdraw from the Faculty and will not be considered for readmission to the Faculty for at least one year. An application for readmission from a student who has previously been required to withdraw will be considered in open competition with other applicants for admission. On readmission, credit will not be granted for courses taken with grades of D during the review period immediately prior to withdrawal, and Satisfactory Standing must be achieved at the next review.

TABLE II

Minimum Requirements for Satisfactory Standing in the Faculty		4	5	6	7	8	9	10	11	12	13
Number of Courses											
Minimum Number of Grades of C or Better		3	4	4	5	6	6	7	8	8	9
Maximum Number of Uncleared Failing Grades:	1										

TABLE III

Minimum Requirements for Probationary Standing in the Faculty		4	5	6	7	8	9	10	11	12	13
Number of Courses											
Minimum Number of Grades of C or Better		2	3	3	4	4	5	5	6	6	7
Maximum Number of Uncleared Failing Grades:	2										

#### 5. Deferred Examinations in Engineering Courses

- Where a student has been unable to write an examination owing to illness, family affliction or other similar circumstances, the Faculty may authorize the writing of a deferred examination.
- For the purpose of providing evidence to the Faculty as to the nature of illness and its effect on the student's ability to write an examination, the physician's medical report should be made on a form provided by the Faculty of Engineering, where possible. If this form is not used, the medical report should contain the information required by the Faculty of Engineering.

#### 6. Supplemental Examinations in Engineering Courses

- At the discretion of the Dean of Engineering, supplemental examination privileges may be granted to students with Satisfactory or Probationary Standing, but the number of such examinations cannot exceed one third of the courses taken by the student during the period under review.
- The grade of the supplemental examination shall replace only the grades of examinations and quizzes, and shall not compensate for or replace laboratory, project and assignment grades.
- A student who has failed to pass a specific course after a supplemental examination must repeat the course or replace it by an alternative course approved by the Dean of Engineering.

#### 7. Equivalent Courses

Approval may be given, at the discretion of the Dean, for a student to replace one or more Engineering courses by other acceptable courses. Written approval must be obtained in advance. Normally, such replacement courses will be taken at the University of Victoria.

An F grade in any course taken outside of the Faculty of Engineering may be cleared by passing another acceptable course, subject to the written approval of the Dean of Engineering.

#### 8. Withdrawal from Courses

Students will not be permitted to withdraw from a given course more than once.

#### 9. Graduation Requirements

Students are deemed to have satisfied the graduation requirements if:

- They have completed successfully the full set of courses specified for the particular degree program with Satisfactory Standing, and
- they have completed successfully at least four work terms.

#### 10. Degrees with First Class Distinction

Students who obtain a grade point average of not less than 7.00 over the last two years of their program and have no failing grades and not more than two D grades over the last two years of their program will receive the B.Eng. degree with First Class distinction.

#### 11. Dean's List

Students who complete their graduation requirements with First Class distinction shall be included in the Dean's Graduation List.

#### 12. Special Provisions

Notwithstanding the above regulations, the Faculty shall exercise an equitable discretion in all cases so as to achieve fairness in the application of academic regulations.

## ENGINEERING COOPERATIVE EDUCATION PROGRAM

This program is an integral and mandatory part of the degree programs for all undergraduate students in the Faculty. There are six work terms offered, according to the schedule shown in Table I under the heading Academic Terms and Academic Years.

The following regulations apply to the program:

1. The first work term (W1) is optional.
2. Each student will normally be required to take the five work terms W2, W3, W4, W5 and W6.
3. The work term performance of each student will be assessed and a Pass or Fail will be given.
4. A student must normally achieve a Pass in each work term in order to proceed to the next academic term. In exceptional circumstances, a student may receive the permission of the Chairman of the Department to proceed in the academic program after failing a work term and in such a case a replacement work term must be taken prior to graduation.
5. Students who transfer into the Engineering program with not less than 12 units of academic credit may apply for transfer credit of work terms that have been successfully completed while registered in another postsecondary institution.
6. Notwithstanding (2) above, a student must successfully complete at least four work terms prior to graduation.

The Engineering Cooperative Education Coordinator is responsible for work placements. Interviews between Engineering students and prospective employers are organized by the Engineering Cooperative Education Coordinator.

## REQUIREMENTS COMMON TO ALL BACHELOR OF ENGINEERING PROGRAMS

### Engineering Core

CHEM 100	Introduction to Chemistry
or	
CHEM 101	Fundamentals of Chemistry: I
or	
CHEM 140	Principles of Chemistry
CHEM 102	Fundamentals of Chemistry: II
C SC 110	Computer Programming: I
C SC 160	Introduction to Data Structures
C SC 349A	Numerical Analysis: I
ELEC 216	Fundamentals of Electrical Engineering
ENGR 150	Engineering Graphics
ENGR 240	Technical Writing
ENGR 280	Engineering Economics
ENGR 446	Technical Report
ENGR 447	Social Aspects of Engineering: I
ENGR 497	Social Aspects of Engineering: II
ENGR 498	Engineering Law
ENGL 115	College Composition
MECH 245	Engineering Fundamentals: I
MATH 100	Calculus: I
MATH 101	Calculus: II
MATH 133	Matrix Algebra for Engineers
MATH 200	Calculus of Several Variables
MATH 201	Introduction to Differential Equations
STAT 254	Probability and Statistics for Engineers
PHYS 120	Mechanics: I
PHYS 125	Fundamentals of Physics

## DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Andreas Antoniou, B.Sc., Ph.D. (London), F.I.E.E.E., F.I.E.E., P.Eng., C.Eng., Professor and Chairman of the Department

Vijay K. Bhargava, B.Sc. (Rajasthan), B.Sc., M.Sc., Ph.D. (Queen's), P.Eng. Professor

James P. Duncan, B.E., M.E. (Adelaide), D.Sc. (Manchester), F.I.M.E., F.I.P.E., P.Eng., C.Eng., Adjunct Professor (1987-88)

R. Lynn Kirlin, B.S., M.S.(U. of Wyoming), Ph.D. (Utah State), P.Eng., Professor

Eric G. Manning, B.Sc., M.Sc.(Waterloo), Ph.D. (Illinois), F.I.E.E.E., Professor, P.Eng.

Geoffrey W. Vickers, Dip.Eng. (Birmingham), M.Sc., Ph.D. (Manchester), P.Eng., C.Eng., Adjunct Professor (1987-88)

Panajotis Agathoklis, Dipl.El.Eng., Dr.Sc. Techn. (E.T.H., Zurich), Associate Professor

James S. Collins, B.Sc. (Dalhousie), B.Eng., M.Eng., (Nova Scotia Technical College), Ph.D. (Washington), P.Eng., Adjunct Associate Professor (1987-88)

Nikitas J. Dimopoulos, B.Sc. (National & Kapodistrian Univ. of Athens), M.Sc., Ph.D. (Maryland), Associate Professor

Fayez El Guibaly, B.Sc. (Cairo), B.Sc. (Ain Shams), Ph.D. (Brit. Col.), P.Eng., Associate Professor

David M. Farmer, B.Com., M.Sc. (McGill), Ph.D. (Brit. Col.) Adjunct Associate Professor (1986-88)

Harry H. L. Kwok, B.A. (Calif. - Los Angeles), Ph.D. (Stan.), Associate Professor

Warren D. Little, B.A.Sc., M.A.Sc., Ph.D. (Brit. Col.), P.Eng., Associate Professor

Wu-Sheng Lu, B.Sc. (Fudan), M.Sc. (E. China Normal), M.Sc., Ph.D. (Minnesota), Associate Professor

Adam Zielinski, B. Eng., M.Eng., Ph.D. (Wroclaw), P.Eng., Associate Professor

Ashoka K.S. Bhat, B.Sc. (Mysore), B.E., M.E. (Indian Institute of Science), M.A.Sc., Ph.D. (Tor.), P.Eng., Assistant Professor

Peter F. Driessen, B.Sc., Ph.D. (Brit. Col.), Assistant Professor

Kin Fun Li, B.Eng., Ph.D. (Concordia), Assistant Professor

Ruediger Vahldieck, Ing. (Luebeck), Dipl. Ing., Dr.-Ing. (Bremen), Assistant Professor

Demetrios T. Pavlides, B. Eng. (Concordia), P.Eng., Manager of Laboratories

### GRADUATE PROGRAMS

For information on studies leading to the M. Eng., M.A.Sc. and Ph.D. degrees, see page 222; for graduate courses, see page 185.

The Department participates in the Cooperative Education Program in the Faculty of Graduate Studies and by individual arrangement. Engineering graduate students may participate in a Cooperative Education graduate program as described in the Faculty of Graduate Studies section of this Calendar (page 211).

Further information may be obtained from the Department of Electrical and Computer Engineering Graduate Adviser.

Application forms for graduate admission are available from the Faculty of Graduate Studies.

### UNDERGRADUATE PROGRAMS

The program B.Eng. in Electrical Engineering consists of the Engineering Core (see above), the Electrical Engineering Core, and one of three Elective Options.

#### Electrical Engineering Core

CENG 390	Digital Design: I
CENG 440	Digital Design: II
C SC 230	Computer Systems and Assembly Language
ELEC 220	Electrical Properties of Materials
ELEC 250	Linear Circuits: I
ELEC 260	Signal Analysis: I
ELEC 300	Linear Circuits: II
ELEC 310	Signal Analysis: II
ELEC 320	Electronic Devices: I
ELEC 330	Electronic Circuits: I
ELEC 340	Electromagnetic Field Theory
ELEC 350	Communication Theory and Systems: I
ELEC 360	Control Theory and Systems: I
ELEC 370	Electromechanical Energy Conversion
ELEC 380	Electronic Circuits: II
ELEC 395	Seminar
MECH 295	Engineering Fundamentals: II

**Electrical Engineering Elective Options**

*Microelectronics and VLSI Systems*

- ELEC 410 Power Electronics
- ELEC 415 Microelectronics Technology
- ELEC 465 Design of VLSI Systems
- ELEC 470 Electronic Devices: II

Two electives from List A  
Two electives from List B

*Communications and Signal Processing*

- ELEC 400 Random Signals
- ELEC 404 Microwave and Optical Communication Systems: I
- ELEC 408 Analog Filters
- ELEC 450 Communication Theory and Systems: II
- ELEC 454 Microwave and Optical Communication Systems: II
- ELEC 458 Digital Filters

One elective from List A  
One elective from List B

*Control Systems and Robotics*

- CENG 445 Microprocessor Systems
- ELEC 403 Engineering Design by Optimization
- ELEC 425 Robotics: I
- ELEC 460 Control Theory and Systems: II
- ELEC 475 Robotics: II

One elective from List A  
Two electives from List B

The program B.Eng. in Computer Engineering consists of the Engineering Core (see page 171), the Computer Engineering Core, and a set of elective courses.

**Computer Engineering Core**

- C SC 275 File Structures for Data Processing\*
- C SC 225 Data Structures
- C SC 230 Computer Systems and Assembly Language
- C SC 360 Introduction to Operating Systems
- C SC 365 Software Engineering
- CENG 245 Discrete Structures
- CENG 390 Digital Design: I
- CENG 420 Artificial Intelligence
- CENG 440 Digital Design: II
- CENG 445 Microprocessor Systems
- CENG 450 Computer Systems and Architecture
- CENG 455 Real Time Computer Systems
- CENG 460 Computer Communication Networks\*\*
- ELEC 220 Electrical Properties of Materials
- ELEC 250 Linear Circuits: I
- ELEC 260 Signal Analysis: I
- ELEC 300 Linear Circuits: II
- ELEC 310 Signal Analysis: II
- ELEC 320 Electronic Devices: I
- ELEC 330 Electronic Circuits: I
- ELEC 350 Communication Theory and Systems: I
- ELEC 360 Control Theory and Systems: I
- ELEC 380 Electronic Circuits: II

\* For students who have completed Term 2A before 1987.  
\*\* For students who have completed Term 2A in 1987 or later.

**Computer Engineering Elective Courses**

One elective from List A  
One elective from List B

**Elective Courses**

List A May-August Term

- CENG 445 Microprocessor Systems
- C SC 275 File Structures for Data Processing\*
- ELEC 400 Random Signals
- ELEC 403 Engineering Design by Optimization
- ELEC 404 Microwave and Optical Communication Systems: I
- ELEC 408 Analog Filters
- ELEC 410 Power Electronics
- ELEC 415 Microelectronics Technology
- ELEC 425 Robotics: I
- ELEC 499 Technical Project
- MECH 410 Computer Aided Design

\* For students who have completed Term 2A before 1987.

List B January-April Term

- CENG 245 Discrete Structures
- CENG 460 Computer Communication Networks
- CENG 485 Pattern Recognition
- C SC 330 Programming Languages
- C SC 349B Numerical Analysis: II
- ELEC 450 Communication Theory and Systems: II
- ELEC 454 Microwave and Optical Communication Systems: II
- ELEC 458 Digital Filters
- ELEC 460 Control Theory and Systems: II
- ELEC 465 Design of VLSI Systems
- ELEC 470 Electronic Devices: II
- ELEC 475 Robotics: II
- ELEC 499 Technical Project
- MECH 460 Computer Aided Manufacture

**ACADEMIC SCHEDULE**

**a) Terms 1A and 1B of B.Eng. in Electrical Engineering and B.Eng. in Computer Engineering.**

Term 1A	Term 1B
CHEM 100 or 101 or 140	CHEM 102
C SC 110	C SC 160
MATH 100	ENGL 115
MATH 133	ENGR 150
PHYS 120	MATH 101
	PHYS 125

**b) Terms 2A to 4B of B.Eng. in Electrical Engineering**

Schedule A: For students who have completed Term 2A in 1987 or earlier.

Term 2A	Term 2B	Term 3A	Term 3B
ELEC 216	C SC 230	C SC 349A	CENG 390
ELEC 220	ELEC 250	ELEC 300	ELEC 350
ENGR 240	ELEC 260	ELEC 310	ELEC 360
MECH 245	MECH 295	ELEC 320	ELEC 370
MATH 200	ENGR 280	ELEC 330	ELEC 380
STAT 254	MATH 201	ELEC 340	ELEC 395

Term 4A	Term 4B
CENG 440	ENGR 497
ENGR 447	ENGR 498
Elective Option	Elective Option

Plus ENGR 446 Technical Report to be completed during last work term.

Schedule B: For students who have not completed Term 2A in 1987 or students who will complete Term 2A after 1987.

Schedule A with the following change:  
Interchange STAT 254 and C SC 230

**c) Terms 4A and 4B of B.Eng. in Electrical Engineering Elective Options**

*Microelectronics and VLSI Systems*

Term 4A	Term 4B
ELEC 410	ELEC 465
ELEC 415	ELEC 470
Two electives from List A	Two electives from List B

*Communications and Signal Processing*

Term 4A	Term 4B
ELEC 400	ELEC 450
ELEC 404	ELEC 454
ELEC 408	ELEC 458
One elective from List A	One elective from List B

*Control Systems and Robotics*

Term 4A	Term 4B
CENG 445	ELEC 460
ELEC 403	ELEC 475
ELEC 425	
One elective from List A	Two electives from List B

**d) Terms 2A to 4B of B.Eng. in Computer Engineering**

Schedule A: For students who have completed Term 2A before 1987.

Term 2A	Term 2B	Term 3A	Term 3B
ELEC 216	C SC 230	CENG 245	CENG 390
ELEC 220	C SC 275	C SC 349A	C SC 225
ENGR 240	ELEC 250	ELEC 300	ELEC 350
MECH 245	ELEC 260	ELEC 310	ELEC 360
MATH 200	ENGR 280	ELEC 320	ELEC 380
STAT 254	MATH 201	ELEC 330	ELEC 395
	Term 4A	Term 4B	
	CENG 440	CENG 450	
	CENG 445	CENG 455	
	C SC 360	CENG 420	
	C SC 365	ENGR 497	
	ENGR 447	ENGR 498	
	One elective from List A	One elective from List B	

Plus ENGR 446 Technical Report to be completed during last work term.

Schedule B: For students who have completed Term 2A in 1987.

Schedule A with the following changes:

Replace C SC 275 by CENG 245

Replace CENG 245 by C SC 225

Replace C SC 225 by C SC 360

Replace C SC 360 by CENG 420

Replace CENG 420 by CENG 460

Schedule C: For students completing Term 2A after 1987.

Schedule A with the following changes:

Interchange STAT 254 and C SC 230

Replace C SC 275 by CENG 245

Replace CENG 245 by C SC 225

Replace C SC 225 by C SC 360

Replace C SC 360 by CENG 420

Replace CENG 420 by CENG 460

**DEPARTMENT OF MECHANICAL ENGINEERING**

Behrouz Tabarrok, B.Sc. (Wolverhampton Polytechnic), D. Phil. (Oxon.), Professor and Chairman of the Department  
 Geoffrey W. Vickers, Dip.Eng. (Birmingham), M.Sc., Ph.D. (Manchester), P.Eng., C.Eng., Professor  
 W. Scott Dunbar, B.Sc. (Brit. Col.), M.Sc. (Tor.), Ph.D. (Stan.), Adjunct Assistant Professor (1987-88)

MECH 460  
 MECH 461  
 MECH 462

Computer Aided Manufacture  
 Plasticity and Manufacturing Process  
 Small Business Organization

One elective from List A  
 One elective from List B

*Ocean Engineering*

MECH 410  
 MECH 440  
 MECH 441  
 MECH 490

Computer Aided Design  
 Principles of Naval Architecture  
 Propulsion Machinery for Ocean Vehicles  
 Ocean Vehicle Dynamics Resistance and Propulsion

MECH 491  
 MECH 492

Ship and Offshore Structure Design  
 Ocean Resources and Exploration

One elective from List A  
 One elective from List B

**Elective Courses**

## List A May-August Term

MECH 410  
 MECH 411  
 MECH 420  
 MECH 430  
 MECH 440  
 MECH 441  
 MECH 499  
 ELEC 403

Computer Aided Design  
 Organization of the Production Process  
 Finite Element Applications  
 Robotics  
 Principles of Naval Architecture  
 Propulsion Machinery for Ocean Vehicles  
 Technical Project  
 Engineering Design by Optimization

## List B January-April Term

CENG 490  
 MECH 460  
 MECH 461  
 MECH 462  
 MECH 470  
 MECH 480  
 MECH 490

Artificial Intelligence  
 Computer Aided Manufacture  
 Plasticity and Manufacturing Processes  
 Small Business Organization  
 Applied Theory of Elasticity  
 Control Theory and Systems  
 Ocean Vehicle Dynamics, Resistance and Propulsion  
 Ship and Offshore Structure Design  
 Ocean Resources and Exploration  
 Technical Project

**GRADUATE PROGRAMS**

M.Sc. and Ph.D. available by special arrangement (see page 211).

**UNDERGRADUATE PROGRAMS**

The program B.Eng. in Mechanical Engineering consists of the Engineering Core (see page 178), Mechanical Engineering Core, and one of three Elective Options.

**Mechanical Engineering Core**

ELEC 365	Applied Electronics and Electrical Machines
MATH 321	Differential Equations for Engineers
MECH 220	Mechanics of Solids: I
MECH 260	Engineering Design: I
MECH 280	Mechanics of Solids: II
MECH 325	Properties of Engineering Materials
MECH 330	Machine Dynamics
MECH 335	Mechanisms and Robotic Manipulators
MECH 340	Thermodynamics
MECH 345	Mechanics of Fluids
MECH 355	Introduction to Microprocessors
MECH 360	Engineering Design: II
MECH 380	An Introduction to Mechanical Control Systems
MECH 390	Energy Systems
MECH 395	Heat and Mass Transfer
MECH 400	Design Project

**Mechanical Engineering Elective Options***Design and Computer Aided Engineering*

MECH 410	Computer Aided Design
MECH 420	Finite Element Applications
MECH 430	Robotics
MECH 460	Computer Aided Manufacture
MECH 470	Applied Theory of Elasticity
MECH 480	Control Theory and Systems

One elective from List A

One elective from List B

*Engineering Manufacture & Business Management*

MECH 411	Organization of the Production Process
MECH 412	Industrial Economics
MECH 430	Robotics

**ACADEMIC SCHEDULE****a) Terms 1A and 1B of B. Eng. in Mechanical Engineering**

Term 1A	Term 1B
CHEM 100 or 101 or 140	CHEM 102 C SC 160
C SC 110	ENGL 115
MATH 100	ENGR 150
MATH 133	MATH 101
PHYS 120	PHYS 125

**b) Terms 2A to 4B of B.Eng. in Mechanical Engineering**

Term 2A	Term 2B
ELEC 216	STAT 254
ENGR 240	ENGR 280
MECH 245	MECH 260
MATH 200	ELEC 250
MECH 220	MATH 321
MATH 201	MECH 280

Term 3A	Term 3B
C SC 349A	ELEC 365
MATH 325	MECH 395
MECH 330	MECH 355
MECH 335	MECH 360
MECH 340	MECH 390
MECH 345	MECH 380

Term 4A	Term 4B
ENGR 447	ENGR 497
MECH 400	ENGR 498
Elective Option	Elective Option
Plus ENGR 446 Technical Report to be completed during last work term	

**c) Terms 4A and 4B of B.Eng. in Mechanical Engineering Elective Options***Design and Computer Aided Engineering*

Term 4A	Term 4B
MECH 410	MECH 460
MECH 420	MECH 470
MECH 430	MECH 480
One elective from List A	One elective from List B

*Engineering Manufacture & Business Management*

Term 4A	Term 4B
MECH 411	MECH 460
MECH 412	MECH 461
MECH 430	MECH 462
One elective from List A	One elective from List B

*Ocean Engineering*

Term 4A	Term 4B
MECH 410	MECH 490
MECH 440	MECH 491
MECH 441	MECH 492
One elective from List A	One elective from List B

## COURSES IN THE FACULTY OF ENGINEERING UNDERGRADUATE COURSES

Students are advised that enrollment in courses and degree programs may be limited by the availability of staff and resources.

Students who have not been admitted to the Faculty of Engineering will not be permitted to register in Engineering courses except with the prior written permission of the Dean.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### ENGINEERING COURSES

**ENGR 150 (formerly ENGR 100) (1½) ENGINEERING GRAPHICS**

Basic concepts of hardware and graphics software; development of graphics software; theories of perspective, orthographic and isometric projections; algorithms for 2-D and 3-D transformations and computer representation of physical shapes; elements of descriptive geometry, freehand sketching, dimensioning and sectioning. Use of CAD software packages. (*Prerequisite*: C SC 160 which may be taken concurrently)

F(3-2)

**ENGR 240 (1½) TECHNICAL WRITING**

This course will focus on searching and referencing methods used in dealing with scientific and technical literature and on the characteristics of effective technical and scientific style. The emphasis throughout will be on clarity, precision, and consistency. Students will acquire practical experience in the writing of short technical documents such as memoranda, letters and abstracts, longer forms such as reports, papers, and theses, and instructional forms such as manuals, brochures, and specifications. (*Prerequisite*: ENGL 115)

F(3-0)

**ENGR 280 (ECON 280) (1½) ENGINEERING ECONOMICS**

Principles of economic decision making and choice. Demand, production and cost analysis; net present value, equivalent annual value and rate of return criteria; cost of capital, decision making under risk and uncertainty; public project evaluation, externalities and public goods. (*Prerequisites*: MATH 133 and 200, STAT 254)

K(3-0-1)

sional societies, organization of engineering employment, and professional ethics. The meetings will be moderated by a faculty member. (*Prerequisite*: Completion of terms 1A to 2B)

F(2-0)

**ENGR 446 (1) TECHNICAL REPORT**

All students in the B.Eng. programs must submit a technical report on entering their final term. This report is to be from 2,000 to 5,000 words in length and on a topic closely related to one or more projects undertaken during the last work term. The topic must be approved by each student's Cooperative Coordinator at least 3 months prior to submission, and the letter of approval must accompany the report. The report must represent a review of a current engineering problem or current engineering practice. The report must be suitably researched,

documented, and illustrated. It must be typewritten on one side only of 8½ x 11" white paper of good quality and must be suitably bound. The original and one photocopy of the report must be submitted to the Cooperative Education Office by 4:00 p.m. on the third Monday after the beginning of the last term. (*Prerequisites*: 240, and completion of term 4A)

F

**ENGR 447 (1½) SOCIAL ASPECTS OF ENGINEERING: I**

This course introduces the student to the interaction between the person and technology. The psychological effects of technology on the person's behavior, values and well being will be considered, as will human efforts to adapt machines to individuals. The impact of technological development on the family, the community and the organization will be assessed. (*Prerequisite*: Completion of terms 1A to 3B)

K(3-0)

**ENGR 497 (1½) SOCIAL ASPECTS OF ENGINEERING: II**

This course introduces the student to the effects of technology on society. The ethical, environmental, economic and political issues raised by technological change will be emphasized. (*Prerequisite*: Completion of terms 1A to 3B)

S(3-0)

**ENGR 498 (1½) ENGINEERING LAW**

Sources and classification of law; professional engineering legislation, registration and discipline; introduction to tort law including negligence; introduction to contract law including employment law. Ethics in professional practice. (*Prerequisite*: Completion of terms 1A to 3B)

S(3-0)

### COMPUTER ENGINEERING COURSES

**CENG 245 (formerly 345) (1½) DISCRETE STRUCTURES**

Set algebra; mappings and relations with applications in communications systems. Algebraic structures; semigroups and groups. Theory of undirected and directed graphs with applications in systems and circuit analysis. Boolean algebras, propositional logic, and introduction to the theory of automata with applications in digital design. (*Prerequisites*: MATH 101 and 133)

K(3-0)

**CENG 390 (1½) DIGITAL DESIGN: I**

Binary Boolean algebra and its application to switching circuits. Transistor gates and their practical limitations. Integrated circuit logic families, such as DTL, TTL, ECL, MOSL and CMOSL. Application of combinational MSI and LSI circuits to electronic systems and instrumentation. (*Prerequisite*: ELEC 330)

F(3-3)

**CENG 420 (formerly 490) (1½) ARTIFICIAL INTELLIGENCE**

Philosophy of artificial intelligence. AI programs and languages, representations and descriptions, exploiting constraints. Rule based and heuristic systems. Applications to engineering. (*Prerequisite*: C SC 225)

S(3-0)

**CENG 440 (1½) DIGITAL DESIGN: JI**

Analysis, design, and practical limitations of flip flops. Characterization, analysis, design, and optimization of clock mode, pulse mode, and level mode sequential circuits. Practical limitations of sequential circuits and hazards. Design of registers, counters, and random access memories. Application of MSI and LSI sequential circuits to electronic systems and instrumentation. (*Prerequisite:* 390) K(3-1½)

**CENG 445 (1½) MICROPROCESSOR SYSTEMS**

Introduction to microprocessor architecture. Instruction set, addressing mode, and programming. Memories, I/O systems, and interfacing. Developmental systems. Application to engineering systems. (*Prerequisites:* 440, which may be taken concurrently; C SC 230) K(3-1½)

**CENG 450 (1½) COMPUTER SYSTEMS AND ARCHITECTURE**

Computer architectures and operating systems involving concurrency, parallel processing, real time processing, and computer communications. Topics covered include synchronization, deadlock, name management, resource allocation, pipelining, multiprocessors, packet switching networks, protocol design and verification, distributed systems. (*Prerequisites:* 440 and C SC 360) S(3-3)

**CENG 455 (1½) REAL TIME COMPUTER SYSTEMS**

Application of microcomputers and minicomputers to real time systems, e.g., data acquisition and control systems. I/O devices and instrumentation for real time applications. Design and simulation of real time systems. Real time operating systems. (*Prerequisites:* 445, ELEC 360 and C SC 360) S(3-1½)

**CENG 460 (1½) COMPUTER COMMUNICATION NETWORKS**

Introduction to computer networking principles and engineering including remote access, wide-area networking, local area networks, network topology, communication hardware and software protocols, open-system-interconnection model, routing and flow control, performance, reliability, security, example networks. (*Prerequisites:* C SC 230 and ELEC 350) S(3-0)

**CENG 485 (1½) PATTERN RECOGNITION**

Parallel and sequential recognition methods. Bayesian decision procedures, perceptons, statistical and syntactic approaches, recognition grammars. Feature extraction and selection, scene analysis, and optical character recognition. (*Prerequisite:* STAT 254) S(3-0)

**ELECTRICAL ENGINEERING COURSES****ELEC 216 (1½) FUNDAMENTALS OF ELECTRICAL ENGINEERING**

Electric charge, Coulomb's Law, electrostatic forces, electric field, Gauss's Law, electric potential, stored energy. Electric current, conduction in a vacuum and in material media, displacement current, magnetic field of a current, force on a current carrying wire, magnetic induction, electromotive force, energy stored in a magnetic field. Magnetism and magnetic circuits. Time varying fields. Capacitance, resistance, inductance, and their characterization. (*Prerequisite:* MATH 200 which may be taken concurrently) F(3-3-1)

This course is equivalent to Physics 216.

**ELEC 220 (1½) ELECTRICAL PROPERTIES OF MATERIALS**

Structure of crystals. Electrical, magnetic, dielectric and optical characteristics and their measurements. Energy levels and transport properties of solids. Device applications of metals, semiconductors and insulators. (*Prerequisite:* 216 which may be taken concurrently) F(3-0)

**ELEC 250 (1½) LINEAR CIRCUITS: I**

Current, voltage, power and energy; resistance, inductance and capacitance; sources. Series and parallel circuits. Formulation of equilibrium equations using Kirchoff's voltage and current laws. Network theorems: superposition, reciprocity, Thevenin, Norton, maximum power transfer. Step response of simple RC, RL and RLC circuits. Sinusoidal steady state response of RLC circuits, power in ac circuits, frequency response, resonance. Coupled coils and transformers. (*Prerequisites:* 216 and MATH 201 which may be taken concurrently) K(3-1½)

**ELEC 260 (1½) SIGNAL ANALYSIS: I**

Characteristics of continuous time signals and waveform calculations. The Fourier series and its application in the analysis of periodic signals. The impulse, unit step and other elementary functions. Resolution of

signals into impulse and unit step functions. The Fourier transform and its application to spectral analysis. Functions of a complex variable and their derivatives. Analytic functions and Cauchy-Riemann equations. Rational, exponential, trigonometric, hyperbolic functions and the logarithm of a complex variable. Partial fractions. The Laplace transform and its application in the representation of signals. Interrelation between the Fourier and Laplace transforms. (*Prerequisites:* 216, and MATH 133 and 200) K(3-0)

**ELEC 300 (1½) LINEAR CIRCUITS: II**

Controlled sources and ideal amplifiers. Analysis of passive and active circuits using the Laplace transform. Loop and node methods and matrix characterization of complex circuits. Application of signal flow graphs. Driving point and transfer functions. Stability of active circuits. Infinite gain controlled sources as circuit elements and their representation by means of nullators, norators, and nullors. Analysis of circuits containing nullors. Two port networks and their characterization in terms of the h parameters and y parameters. Wave characterization and power transfer relations. Frequency response of active and passive circuits; use of Bode plots. Computer aided circuit analysis and design. (*Prerequisites:* 250 and 260) S(3-1½)

**ELEC 310 (1½) SIGNAL ANALYSIS: II**

Discrete time and sampled data signals and their generation by means of the sampling process. The impulse, unit step, and other discrete time elementary functions. Resolution of discrete time signals into impulse and unit step functions. Complex integrals and Cauchy's integral theorem. Complex sequences and series. The Taylor and Laurent series. Integration by the method of residues. The z transform and its application in the representation of discrete time signals. Advanced properties and convergence of the Laplace and Fourier transforms. Interrelations among continuous time, sampled data, and discrete time signals. The sampling theorem. The discrete Fourier transform and its relation with the continuous time Fourier transform and the Fourier series. (*Prerequisite:* 260) S(3-0)

**ELEC 320 (1½) ELECTRONIC DEVICES: I**

Crystal structure and valence model of pure and doped semiconductors. Mobility and electrical conductivity. Mode of operation, physical mechanisms and characteristics of pn junctions; junction capacitance; breakdown; varactor, Zener and tunnel diodes. Modes of operation, physical mechanisms, and characteristics of junction and metal oxide-silicon field effect transistors and bipolar transistors. (*Prerequisite:* 220) S(3-1½)

**ELEC 330 (1½) ELECTRONIC CIRCUITS: I**

Modelling and application of diodes including Zener, varactor, and tunnel diodes; rectifiers, voltage regulators, and waveform shaping circuits. Biasing of unipolar and bipolar transistors. Small signal analysis and modelling of field effect and bipolar transistor amplifiers. Power and multistage amplifiers. Computer aided analysis and design of electronic circuits. (*Prerequisites:* 300 and 320 both of which may be taken concurrently) S(3-1½)

**ELEC 340 (1½) ELECTROMAGNETIC FIELD THEORY**

Field concept, Maxwell's equations. Boundary conditions. Power and energy. Electrostatic field. Electrostatic potential. Concept of capacitance. Conformal mapping in electrostatics. Polarization. Concept of local field in matter. Magnetostatic field. Biot-Savart law. Scalar magnetic potential. Plane waves. Total internal reflection. Brewster angle. (*Prerequisites:* 216 and 260) S(3-0-1)

**ELEC 350 (1½) COMMUNICATIONS THEORY AND SYSTEMS: I**

Principles of amplitude, frequency and phase modulation. Modulators, mixers and demodulators. Representative examples of complete transmission systems. Qualitative treatment of modulation systems in the presence of noise. (*Prerequisites:* 310 and 330) F(3-1½)

**ELEC 360 (1½) CONTROL THEORY AND SYSTEMS: I**

Characterization of systems; linearity, time invariance, and causality. General feedback theory; time and frequency domain analysis of feedback control systems; Routh-Hurwitz and Nyquist stability criteria; root locus methods; modelling of dc servo; design of simple feedback systems; introduction to state space methods. (*Prerequisites:* 300 and 310) F(3-1½)

**ELEC 365 (1½) APPLIED ELECTRONICS & ELECTRICAL MACHINES**

Characteristics of transducers and electronic devices, analysis of electronic circuits such as power supplies and amplifiers; electric motors, generators, transformers, rectifiers and inverters. (*Prerequisites:* 216)

(3-2\*)

(0-2\*) implies a 2 hour laboratory period taken by students on alternate weeks.

**ELEC 370 (1½) ELECTROMECHANICAL ENERGY CONVERSION**

Faraday's law of electromagnetic induction, transformers and generators. Lorentz's force and Coulomb's force and their applications in industrial motors. Lumped parameter concepts of inductance and motional inductance. Energy and coenergy in the derivation of torques and forces. Structures and performance characteristics of dc, synchronous, and induction machines. (*Prerequisites:* 250 and ENGR 245) F(3-1½)

**ELEC 380 (1½) ELECTRONIC CIRCUITS: II**

Operation, construction, imperfections and modelling of differential and operational amplifiers; frequency response and compensation. Application of operational amplifiers for the design of feedback amplifiers, logarithmic amplifiers, precision rectifiers, voltage regulators, etc. Design of analog to digital and digital to analog converters. Oscillator circuits. Computer aided analysis and design. (*Prerequisite:* 330) F(3-3)

**ELEC 395 (formerly ENGR 395) (1) SEMINAR**

The purpose of this course is to provide students with an opportunity to exercise their ability to present and to defend their thoughts on topics of their own choice. Students will be encouraged to devote some of their discussions to such topics as continuing professional education, professional societies, organization of engineering employment, and professional ethics. The meetings will be moderated by a faculty member. (*Prerequisite:* Completion of terms 1A to 2B) F(2-0)

**ELEC 400 (1½) RANDOM SIGNALS**

Review of random variables, moments and characteristic functions; random processes, noise model, stationarity, ergodicity, correlation and power spectrum, spectrum measurements; response of linear systems to random inputs, cross spectral densities, narrow band noise; introduction to discrete time and space processes, Markov chains and elementary queues. (*Prerequisites:* 310 and MATH 254) K(3-0)

**ELEC 403 (1½) ENGINEERING DESIGN BY OPTIMIZATION**

The steepest descent and Newton methods for unconstrained optimization. Golden section, quadratic and cubic line searches. Conjugate and Quasi-Newton methods for unconstrained minimization. The Fletcher-Reeves algorithm, and Fletcher algorithm with inexact line search. Application to the design of circuits, control systems, filters, mechanisms, and gear systems using optimization techniques. Introduction to constrained optimization and applications to the design of engineering systems. (*Prerequisites:* 360 or MECH 380, C SC 349A) K(3-0)

**ELEC 404 (1½) MICROWAVE AND OPTICAL COMMUNICATIONS SYSTEMS: I**

Plane waves, surface waves, wave impedance, surface impedance. Two wire, coaxial, and parallel plate transmission lines. Waveguide modes, cutoff frequency, dispersion, losses. Dielectric optical waveguides, surface waveguides microstrip. Principles of light transmission optics. Basic antenna theory, linear dipole, aperture, antennas, diffraction, linear arrays. (*Prerequisites:* 300, 310 and 340) K(3-1½)

**ELEC 408 (1½) ANALOG FILTERS**

Design of stable gain amplifiers, negative impedance converters and inverters, gyrators, generalized impedance converters and frequency dependent negative resistance elements for active filter applications. Solution of the approximation problem; Butterworth, Chebyshev, and elliptic approximations. Introduction to the design of LC equally terminated filters. Low sensitivity, active filter structures. Study of filter sensitivity with respect to element variations. Tuning. Computer aided analysis and design. (*Prerequisites:* 310 and 380) K(3-0)

**ELEC 410 (1½) POWER ELECTRONICS**

The application of electronics to energy conversion and control. Electrical thermal characteristics of power semiconductor devices: diodes, bipolar and field effect transistors, and thyristors. Magnetic circuits for energy conversion. Active and passive filtering techniques. Emphasis on device limitations, computer aided analysis and design and system control. Application samples including multipulse controlled rectifiers, high

frequency induction heating, dc-dc conversion, cycloconverters, motor drives, and battery electronics. (*Prerequisites:* 370 and 380) K(3-1½)

**ELEC 415 (1½) MICROELECTRONICS TECHNOLOGY**

Alloyed contacts, diffusion techniques, diffusion theory, four point probe, ion implantation, epitaxial growth, silicon dioxide formation, photolithography, window opening, selected metallization, diode and transistor fabrication, junction depth determination, junction capacitance for general profile, fabrication of monolithic integrated circuits, isolation, junction capacitors, diffused resistors, mask making, device mounting, thin film passive components, thick film components, integrated circuit layout, MOS gate voltage, MOS integrated circuits. (*Prerequisite:* 320) K(3-1½)

**ELEC 425 (1½) ROBOTICS: I**

Structure and specification of robot manipulators; homogeneous transformations; kinematic equations and their solution; differential relationships, motion trajectories; dynamic models for robot manipulators. (*Prerequisites:* 360 and ENGR 245) K(3-0)

**ELEC 450 (1½) COMMUNICATION THEORY AND SYSTEMS: II**

Transmission and filtering of random signals, analysis of modulation systems, in particular pulse code modulation, phase shift keying, frequency shift keying, etc., introduction to noise analysis, information theory and coding. (*Prerequisites:* 350 and 400) S(3-1½)

**ELEC 454 (1½) MICROWAVE AND OPTICAL COMMUNICATIONS SYSTEMS: II**

Circuit theory for waveguiding systems, waveguide discontinuities. Binomial and Chebyshev impedance transformer design. Electromagnetic resonators, the Fabry-Perot resonator. Periodic structures, microwave filters. Faraday rotation and ferrite devices. E.M. wave propagation in optically active media, electro-optic devices. Principles of microwave tubes. (*Prerequisite:* 404) S(3-1½)

**ELEC 458 (1½) DIGITAL FILTERS**

Introduction of the digital filter as a discrete time system. Discrete time transfer function. Time domain and frequency domain analysis. Structures for recursive and nonrecursive digital filters. Application of digital filters for the processing of continuous time signals. Solution of the approximation problem in recursive and nonrecursive filters. Quantization effects. (*Prerequisite:* 360) S(3-0)

**ELEC 460 (1½) CONTROL THEORY AND SYSTEMS: II**

State space analysis and design of continuous time and discrete time systems. Controllability and observability; pole placement techniques. Luemberger observers. Linear quadratic optimal control. Introduction to nonlinear systems. Liapunov stability. (*Prerequisite:* 360) S(3-0)

**ELEC 465 (1½) DESIGN OF VLSI SYSTEMS**

A structured design methodology which enables a digital system designer to exploit the architectural possibilities of the silicon integrated circuit (IC) technology with only a relatively elementary knowledge of device physics or electronic circuit design. A large part of the course will be devoted to design projects leading to generated intermediate files for IC fabrication. (*Prerequisites:* CENG 440) S(3-3)

**ELEC 470 (1½) ELECTRONIC DEVICES: II**

Modes of operation, physical mechanisms, characteristics, and modeling of MOS transistors, Schottky junctions, tunnel diodes, photovoltaic solar cells, Gunn diodes, microwave bipolar transistors, GaAs field effect transistors, and other modern semiconductor devices. (*Prerequisite:* 320) S(3-1½)

**ELEC 475 (1½) ROBOTICS: II**

Dynamic models of robot manipulators; position and speed control. Programming for real time computation and control. Simplification of dynamic models, trajectory generation. Programming languages for robot manipulators. Interaction with the environment using sensors. (*Prerequisites:* 425, 460, which may be taken concurrently, and CENG 445) S(3-1½)

**ELEC 499 (1½) TECHNICAL PROJECT**

The technical project provides an opportunity for each student to carry out a design project associated with one or more of the higher level courses, under the supervision of a faculty member. The nature of the project selected should be such as to require independent study of current technical literature. When feasible the design should be assessed in the laboratory. Each student is to present a complete report at the end of the term. (*Prerequisite:* The student must be registered in term 4A or 4B) K(0-6)

## MECHANICAL ENGINEERING COURSES

**MECH 220 (1½) MECHANICS OF SOLIDS: I**

Bending, shear, axial, torsional loads and diagrams; stress and strain, transformation in two dimensions, Mohr's circle; theories of failure. (Prerequisite: MATH 200) F(3-1)

**MECH 245 (formerly ENGR 245) (1½) ENGINEERING FUNDAMENTALS: I**

Resultant of force systems, equilibrium of particles and rigid bodies; centroids and centre of gravity, friction; moments of inertia; kinematics of particles and rigid bodies; force and acceleration; work and energy; impulse and momentum for particles. Introduction to dynamic modelling of electrical machines and robot manipulators. (Prerequisites: PHYS 120 and MATH 200 which may be taken concurrently) F(3-0)

**MECH 260 (1½) ENGINEERING DESIGN: I**

Design methodology; recognizing and defining open ended engineering problems, generating creative solutions, modelling, analysis, synthesis, computing and testing. Students complete a series of design oriented projects in small teams. (Prerequisite: ENGR 245) K(2-2)

**MECH 280 (1½) MECHANICS OF SOLIDS: II**

Curved beams, thick cylinders; generalized torsion; membrane theory of shells; bending of plates; buckling of columns, plates; lateral torsion buckling; indeterminate structures. (Prerequisite: 220) K(3-0)

**MECH 295 (formerly ENGR 270) (1½) ENGINEERING FUNDAMENTALS: II**

Thermal properties of matter; thermometry; radiation laws; kinetic theory of gases and gas laws; the first and second laws of thermodynamics; principles of heat transfer. Engineering applications such as internal combustion engines, refrigerators, heat exchangers, heat pumps, and heat sinks. (Prerequisites: PHYS 125 and MATH 101) K(3-0)

**MECH 325 (1½) PROPERTIES OF ENGINEERING MATERIALS**

Mechanical properties of wood, plastic, concrete, ceramics, carbon fibre, ferrous and nonferrous metals; basic modes of deformation; crystal structure, ductile and brittle solids; corrosion; mechanical testing; heat treatment. (Prerequisites: CHEM 100 or 101 or 140 and 102) S(3-1)

**MECH 330 (1½) MACHINE DYNAMICS**

Dynamics of particles and rigid bodies including kinematics and kinetics; free, damped and forced vibration of single degree of freedom systems; force transmission and vibration isolation; inertia and dynamic balance, flywheel design; balance of multicylinder piston engines and machinery. (Prerequisite: ENGR 245) S(3-2\*)

**MECH 335 (1½) MECHANISMS AND ROBOTIC MANIPULATORS**

Types of mechanisms, analysis and design of mechanisms to meet functional requirements of position and force. Transmission of energy, analysis and synthesis of cams, gears and linkages. Design for dynamic loading and energy storage. Springs and flywheels. Introduction to robot kinematics. Matrix representation of robot arm position and trajectory. S(3-0)

**MECH 340 (1½) THERMODYNAMICS**

First law, second law, control mass and control volume analyses; properties and behaviour of pure substances, ideal gases and mixtures. S(3-1)

**MECH 345 (1½) MECHANICS OF FLUIDS**

Fluid properties; statics, kinematics, forces on fluid particles; fluid motion; ideal flow; boundary layers and wakes; one dimensional pipe flow; unsteady pipe flow; fluid machines. (Prerequisite: MATH 200) S(3-1)

**MECH 355 (1½) INTRODUCTION TO MICROPROCESSORS**

Computer structure and organization; number systems and codes; assembler language; introduction to microprocessors and their application in instrumentation, manufacturing, control and automation. (Prerequisite: CSC 160) F(3-2\*)

**MECH 360 (1½) ENGINEERING DESIGN: II**

Design of mechanical components; shafts, gears, clutches, brakes, bearings, belts and chains and high pressure components; contact stresses, stress concentration, design for fatigue; hydrodynamic and boundary lubrication; design of fluid power circuits. (Prerequisites: 260 and 320) F(3-0)

**MECH 380 (1½) AN INTRODUCTION TO MECHANICAL CONTROL SYSTEMS**

Introduction to automatic control, open and closed loops, electrical, mechanical and hydraulic devices used in control systems, negative feedback, transfer functions, stability criteria; applications in the process industry. (Prerequisite: 330) F(3-2\*)

**MECH 390 (1½) ENERGY SYSTEMS**

Power generation, thermodynamic cycles, combustion processes, fuel cells, turbomachinery, boilers and condensers; nuclear energy conversion, features of nuclear power plant design, economics of nuclear and fossil fuel power generation; energy collection using renewable solar and wind sources. (Prerequisite: ENGR 270) F(3-0)

**MECH 395 (1½) HEAT AND MASS TRANSFER**

Analytic and numerical analysis of steady and transient conduction in solids. Principles of convection and analyses of heat transfer under laminar and turbulent flow over flat plates and inside and over pipes. Thermal radiation physics and radiation between multiple black and gray surfaces. F(3-1)

**MECH 400 (1½) DESIGN PROJECT**

Complete design of a product or a system (related to elective option); specification of function, analysis, section of materials, strength calculations, preparation of working drawings, cost analysis and tenders. (Prerequisite: 360) K(1-0-3)

**MECH 410 (1½) COMPUTER AIDED DESIGN**

Basic elements of CAD and relevance to current industrial practice; computational geometry for design and 3-D geometry; methods for curve and surface fitting; input and output devices for computer graphics, passive as well as active; representation of physical surfaces and computer aided drafting; graphical programming languages; development of interactive 3-D computer graphics. (Prerequisites: ENGR 150, and MATH 133 and 200) K(3-1½)

**MECH 411 (1½) ORGANIZATION OF THE PRODUCTION PROCESS**

Organization of the production process; job, batch and man-manufacturing systems, factory planning, plant layout and work standards; inventory control; production schedules; production control; operations research; engineering economy. (Prerequisite: C SC 349A) K(3-0)

**MECH 412 (1½) INDUSTRIAL ECONOMICS**

Concepts of business and the economic feasibility of engineering undertakings, rate of return, payback period, replacement decisions, resource allocations, critical path analysis. (Prerequisite: C SC 349A) K(3-0)

**MECH 420 (1½) FINITE ELEMENT APPLICATIONS**

Formulation and application of the finite element method to modelling of mechanical systems, including stress and vibration problems; stiffness method, stiffness matrix, mass matrix, generalized force of numerical procedures; development of simple programs and exposure to general purpose packages. (Prerequisites: 320 and 330, and MATH 321) K(3-2\*)

**MECH 430 (1½) ROBOTICS**

Structure and specifications of robot manipulators; homogeneous transformations; kinematic equations and motion trajectories; position, speed and force control; dynamic models of robot manipulators; use of robots in industrial applications. (Prerequisite: 380) K(3-0)

**MECH 440 (1½) PRINCIPLES OF NAVAL ARCHITECTURE**

Elementary principles of naval architecture; ship geometry, static equilibrium of floating bodies, hull form; large angle, damage and launching stability. (Prerequisite: 360) K(3-0)

**MECH 441 (1½) PROPULSION MACHINERY FOR OCEAN VEHICLES**

Propulsion power plants and machinery selection, boilers, reactors, engines, turbines, condensers; design of shafting, gear train and propellers. (Prerequisites: 270, 340 and 360) K(3-0)

**MECH 450 (1½) SPECIAL TOPICS COURSES**

Special topics courses may be arranged with approval of the Chairman of the Department. (Prerequisite: The student must be registered in term 4A or 4B) KS(3-0)

**MECH 460 (1½) COMPUTER AIDED MANUFACTURE**

Review of common manufacturing processes and the organization of the manufacturing unit; manufacturing processes aided by computers; numerically controlled machine tools; numerically controlled part pro-

gramming; machining of doubly curved surfaces; computerized numerically controlled tools and adaptive control systems; industrial robots; application of CAD/CAM in engineering and medicine. (*Prerequisites*: ENGR 245, MECH 410 or ELEC 430) S(3-1½)

**MECH 461 (1½) PLASTICITY AND MANUFACTURING PROCESSES**  
Plastic behaviour of materials, criteria of flow, extremum principles, slip line field solutions; application to drawing, extrusion, hot and cold rolling, forging, sheet metal forming and metal cutting; process design and control. (*Prerequisites*: 320 and 360) S(3-2\*)

**MECH 462 (1½) SMALL BUSINESS ORGANIZATION**  
Finance, accounting, auditing, taxation, marketing, market research; organizational psychology, personnel selection; engineering economy, equivalent uniform annual cash flow, present worth, cost benefit ratio. (*Prerequisite*: 361) S(3-0-1)

**MECH 470 (1½) APPLIED THEORY OF ELASTICITY**  
Bending of curved beams; stress distribution in flat plates; beams on elastic foundations, axisymmetric bending of cylindrical shells; elastic-plastic behaviour of materials. (*Prerequisite*: 320) S(3-0)

**MECH 480 (1½) CONTROL THEORY AND SYSTEMS**  
Analysis and design of linear and nonlinear systems, control systems in mechanical engineering; control in the process industries. (*Prerequisite*: 380) S(3-2\*)

**MECH 490 (1½) OCEAN VEHICLE DYNAMICS, RESISTANCE AND PROPULSION**  
Dynamics and stability of immersed and floating structures and ocean vehicles; dimensional analysis, model testing, viscous and residual resistance, hydrostatic curves; propeller disk theory, selection and design of propellers, cavitation; applications to surface vessels, submersibles and offshore platforms. (*Prerequisite*: 360) S(3-0)

**MECH 491 (1½) SHIP AND OFFSHORE STRUCTURAL DESIGN**  
Preliminary design methods; weight estimation and selection of principal dimensions, form, structure and power; ship hull strength and vibration analysis of ship hulls, offshore platforms and pipelines, through linear elastic beam theory; computer aided design and analysis. (*Prerequisite*: 410, 440 and 441) S(3-0)

**MECH 492 (1½) OCEAN RESOURCES AND EXPLORATION**  
Design of measurement systems to evaluate oceanographic parameters, underwater acoustics in ocean measurements; principles and techniques of marine geology, mineral deposits, mining of deep seabed surficial ore bodies; marine oology. (*Prerequisite*: 310) S(3-0)

**MECH 499 (1½) TECHNICAL PROJECT**  
The technical project provides an opportunity for each student to carry out a design project associated with one or more of the higher level courses, under the supervision of a faculty member. The nature of the project selected should be such as to require independent study of current technical literature. When feasible, the design should be assessed in the laboratory. (Each student is to present a complete report at the end of the term.) (*Prerequisite*: The student must be registered in term 4A or 4B) KS(0-6)

(0-2\*-0) implies a 2 hour laboratory period taken by students on alternate weeks.

## GRADUATE COURSES

Not all the following courses will be offered in a particular year. Students should consult the Graduate Adviser to determine the courses which will be offered this year.

Students who have taken content equivalent courses at the University of Victoria or elsewhere will not be permitted to take these courses again for credit.

### ENGINEERING COURSES

**ENGR 501 (1½) LINEAR SYSTEMS**  
State space description of systems. Controllability, observability and minimality. Stability and the Lyapunov criterion. Linear state feedback, asymptotic observers and compensator design. Polynomial and matrix fraction descriptions.

**ENGR 502 (1½) COMPUTER AIDED DESIGN (CAD)**  
Basic elements of CAD and relevance to current industrial practice. Computational geometry for design and 3-D geometry. Methods for

curve and surface fitting. Input and output devices for computer graphics, passive as well as active. Representation of physical surfaces and computer aided drafting. Graphical programming languages. Development of interactive 3-D computer graphics. (*Prerequisite*: 150 or equivalent)

**ENGR 503 (1½) ENGINEERING DESIGN BY OPTIMIZATION: I**  
The steepest descent and Newton methods for unconstrained optimization. Golden section, quadratic and cubic line searches. Design of engineering systems such as nonrecursive digital filters by using a line search. Conjugate and Quasi-Newton methods for unconstrained minimization. The Fletcher-Reeves algorithm, and Fletcher algorithm with inexact line search. Design of engineering systems such as recursive digital filters by using multivariable optimization algorithms. Introduction to constrained optimization and applications to the design of engineering systems.

**ENGR 504 (1½) RANDOM SIGNALS**  
Review of random variables. Moments and characteristic functions. Random processes, noise model, stationarity and ergodicity. Correlation and power spectrum, spectra measurements. Response of linear systems to random inputs, cross spectral densities. Narrow band noise. Introduction to discrete time and space processes. Markov chains and elementary queues.

**ENGR 601 (1½) STOCHASTIC CONTROL**  
Concepts of stochastic processes and stochastic state models. Analysis of dynamical systems whose inputs are stochastic processes. Minimal variance control strategies for discrete systems. Sensitivity and stability aspects of the optimal systems. Self tuning regulators. Prediction and estimation techniques. State estimation for discrete systems and Kalman-Bucy filters. (*Prerequisite*: ELEC 460 or equivalent)

**ENGR 602 (1½) COMPUTER AIDED MANUFACTURE**  
Review of common manufacturing processes and the organization of the manufacturing unit. Manufacturing processes aided by computers. Numerically controlled machine tools. Numerically controlled part programming. Machining of doubly curved surfaces. Computerized numerically controlled tools and adaptive control systems. Industrial robots. Application of CAD/CAM in engineering and medicine. (*Prerequisite*: 502 or equivalent; ELEC 360)

**ENGR 603 (1½) ENGINEERING DESIGN BY OPTIMIZATION: II**  
Constrained optimization based on the barrier and penalty methods. Design of engineering systems under constraints such as one dimensional digital filters satisfying prescribed specifications. Minimax methods and their application to the design of engineering systems such as two dimensional digital filters. The Remez exchange algorithm and its application to the design of engineering systems such as one dimensional nonrecursive digital filters. (*Prerequisite*: 503)

### ELECTRICAL ENGINEERING COURSES

**ELEC 511 (1½) ERROR CONTROL CODING TECHNIQUES IN COMMUNICATION**  
Communication channels and the coding problem. Important linear block codes (cyclic, Hamming, BCH and RS codes). Encoding and decoding with shift registers. Threshold decoding. Introduction to convolutional codes. Coding and system design considerations.

**ELEC 512 (1½) DIGITAL COMMUNICATIONS**  
Source and channel descriptions. Source digitization, entropy and the rate distortion tradeoff, lossless source codes (Huffman and run length codes), optimal and adaptive quantization. Digital modulation techniques, optimal coherent receivers, performance evaluation, the incoherent case. Special topics — case studies, fiber optics, satellite systems, mobile radio systems. (*Prerequisite*: ENGR 504 or equivalent)

**ELEC 513 (1½) DATA AND COMPUTER COMMUNICATIONS**  
Analysis and design of computer communication networks. Queuing theory. Circuit, message and packet switching. Modems, multiplexors and concentrators. Network topologies. Routing and flow control. Multiple access techniques. Capacity calculations. Throughput/delay tradeoffs. Multilayer protocols and the OSI model. Survey of existing data networks, including local area networks. Packet radio and broadcast schemes.

**ELEC 531 (1½) DIGITAL FILTERS: I**

Introduction of the digital filter as a discrete system. Discrete time transfer function. Time domain and frequency domain analysis. Structures for recursive and nonrecursive digital filters. Application of digital filters for the processing of continuous time signals. Solution of the approximation problem in recursive and nonrecursive filters. Quantization effects. (Prerequisite: 408 or equivalent)

**ELEC 532 (1½) MULTIDIMENSIONAL DIGITAL SIGNAL PROCESSING**

Two and multidimensional signals. Two dimensional sampling. Multidimensional discrete Fourier transform. Design and implementation of two dimensional systems. Stability of two dimensional recursive filters and finite wordlength effects. Application in image processing, seismic signal processing and beamforming. (Prerequisite: 458 or equivalent)

**ELEC 541 (1½) VLSI TECHNOLOGY**

Lithography for micrometer and submicrometer resolution. Ion implantation and MeV implants. Wet and dry etching. Dielectric isolation. High pressure oxidation. Plasma CVD. Multilevel metallization. Planarization technique. Refractory metals. Laser processing. Advanced bipolar and MOS technology. SOI and 3-D integrated circuits. Design of layout rules. Yield and reliability. Step coverage. Failure mechanism in MOS. Scaling and second order effects. Effect of radiation. GaAs, MESFET and HEMT. Packaging technology trends. Process simulation. CAD tools for layout and circuit simulation. (Prerequisite: 415 or equivalent)

**ELEC 551 (1½) COMPUTER CONTROLLED SYSTEMS**

Sampling of continuous time signals. Process oriented models. Disturbance models. Translation of analog design. State space design methods. Pole Placement design based on input output models. Optimal design methods: state space approach. Optimal design methods: input output approach. Identification. Adaptive control: Self tuning control and model reference control. (Prerequisite: ENGR 501 or equivalent)

**ELEC 561 (1½) MICROCOMPUTER ARCHITECTURE**

This course will study the architecture of modern 32 bit microprocessor based computers and modern signal processors. Topics covered will include packaging, performance, instructions, coprocessors, memory management, bus systems and multiprocessing. (Prerequisite: CENG 445)

**ELEC 562 (1½) MICROCOMPUTER INTERFACING**

This course will study hardware and software interfacing of modern microcomputers. Topics covered will include bus protocols and standards, sensor and actuator interfacing, interface specifications, handlers and software principles, off the shelf interface chips and system integration. (Prerequisite: CENG 440 and 445)

**ELEC 563 (1½) ADVANCED COMPUTER ARCHITECTURE**

Advances in computer architecture. Topics covered will include central processor speed up; memory organization and management; microprogrammed based, bit sliced, RISC and stack architectures; software and hardware features of selected computer architectures; language based computers, fault tolerant systems, associative processors, data flow architecture, and database machines. (Prerequisite: CENG 450 or equivalent)

**ELEC 571 (1½) UNDERWATER ACOUSTIC SYSTEMS**

Propagation of acoustic plane waves in a homogeneous medium and its electrical equivalent model. Acoustic impedance. Pressure measurements and units. Acoustic transducers and equivalent circuits. Acoustic arrays, beam forming and beam steering. Sound transmission in the ocean. Ambient noise. Sonar equations. Performance analysis of active and passive sonar systems. Introduction to specialized acoustic systems. (Prerequisites: 300 and 260 or equivalent)

**ELEC 581 (1½) POWER ELECTRONICS**

Characteristics of power semiconductor switching devices, e.g., SCRs, bipolar and MOS power transistors, GTOs. Gate and base drive circuits. Protection of power semiconductors. Basic principles of phase controlled converters, dc to dc choppers, dc to ac inverters (square wave and pulse width modulated), switching power supplies, resonant converters. Applications to communication and computer power supplies, electric drives, induction heating, etc.

**ELEC 590 (1½-3) DIRECTED STUDY**

A wide range of topics will be available for assignments. Topics will be restricted to recent advances.

**ELEC 591 (1½) MICROWAVE AND MILLIMETER WAVE ENGINEERING**

Introduction to theory and technique of modern microwave and millimeter wave engineering. Emphasis is on millimeter wave engineering aspects. Atmospheric microwave and millimeter wave (mmw) propagation. Propagation in other media. MMW tubes and solid state devices. Properties of various planar transmission lines at millimeter wavelength. Quasi planar transmission media. Finlines and related E plane structures. Dielectric waveguides, H guides, Image lines. Microwave and millimeter wave integrated circuits (mic's). CAD aspects of mic's: filters, matching networks, directional couplers, nonreciprocal devices. Nonlinear devices. (Prerequisites: 404 and 454, or equivalent)

**ELEC 598 (3) M.ENG. PROJECT**

(Grading: INP, COM, N or F)

**ELEC 599 (12) M.A.SC. THESIS**

(Grading: INP, COM, N or F)

**ELEC 611 (1½) DIGITAL COMMUNICATIONS BY SATELLITE**

Model of communications satellite channel. Source coding for voice and video (PCM, ΔM). Digital modulation techniques (BPSK, QPSK, Offset QPSK, MSK, 8-ary PSK, CPFSK). Error control coding techniques in satellite communications. Multiple access techniques (FDMA, TDMA, CDMA). Demand assignment techniques. Packet satellite networks. On board switching and processing. (Prerequisite: 511, ELEC 512)

**ELEC 612 (1½) RADIO COMMUNICATIONS**

Review of existing radio communication systems, both voice and data. Radio channel characterization at HF and VHF/UHF. Effects of propagation, antennas and polarization. Random FM and click noise. Time varying dispersion. System design considerations: modulation techniques, diversity, error control. Co-channel and adjacent channel interference. Specialized systems: mobile satellite, cellular telephone, mobile data systems. (Prerequisite: 512 or equivalent)

**\* ELEC 619A (1½) SELECTED TOPICS IN DIGITAL COMMUNICATIONS****\* ELEC 619B (1½) SELECTED TOPICS IN COMPUTER COMMUNICATIONS****\* ELEC 619C (1½) SELECTED TOPICS IN SECURE COMMUNICATIONS****\* ELEC 629A (1½) SELECTED TOPICS IN COMPUTER AIDED DESIGN****\* ELEC 629B (1½) SELECTED TOPICS IN COMPUTER AIDED MANUFACTURE****ELEC 631 (1½) DIGITAL FILTERS: II**

Design of recursive and nonrecursive digital filters satisfying prescribed specifications. Transformations. Design of wave digital filters. Effects of quantization like roundoff noise and limit cycles. Minimization of noise and elimination of limit cycles. Fast Fourier transforms and their application for the implementation of digital filters. Digital filter applications. (Prerequisite: 531)

**ELEC 632 (1½) ADAPTIVE FILTERS**

Applications overview. Echo cancellation, noise cancellation, equalization, speech coding, and spectral estimation using Transversal and Lattice filters. Minimum mean square error, gradient algorithm, block and recursive least squares. (Prerequisites: 310, 400, 408 or equivalent)

**ELEC 633 (1½) OPTIMAL ESTIMATION**

Random variables review. Estimation methods; maximum likelihood, minimum mean squared error, maximum a posteriori, conditional mean, minimum variance, orthogonality principle. State space system models. Kalman Filtering Adaptive and nonlinear filtering. (Prerequisite: ENGR 504 or equivalent)

**\* ELEC 639A (1½) SELECTED TOPICS IN DIGITAL SIGNAL PROCESSING****\* ELEC 639B (1½) SELECTED TOPICS IN IMAGE PROCESSING****ELEC 641 (1½) VLSI SYSTEM DESIGN**

MOS static and dynamic logic design. CMOS logic design. CAD tools, layout languages, design rule checking, circuit extraction, circuit simulation, silicon compilers. Array logic (PLA, Associative logic matrix, SLA). Gate arrays and cell libraries. Compaction. Routing. The data

path machine. Design for testability. Self timed system design. Systolic arrays. Interconnection networks. VLSI applications, convolution, sorting graphics, matrix arithmetic signal processing. (*Prerequisite*: 465 or equivalent)

• **ELEC 649A (1½) SELECTED TOPICS IN ELECTRONIC CIRCUITS**

• **ELEC 649B (1½) SELECTED TOPICS IN VLSI DESIGN**

**ELECT 651 (1½) CONTROL ASPECTS IN ROBOTICS**

Direct and inverse kinematics. Direct and inverse dynamics. Path planning. PID control and its robustness. Computer torque method. Resolved acceleration control. Differential geometric approach. Adaptive control as applied to manipulators. Hybrid force/position control. Robustness issues of various control algorithms. Computational considerations. (*Prerequisites*: 425 and ENGR 501 or equivalent)

• **ELEC 659A (1½) SELECTED TOPICS IN ROBOTICS**

• **ELEC 659B (1½) SELECTED TOPICS IN AUTOMATIC CONTROL**

• **ELEC 669 (1½) SELECTED TOPICS IN COMPUTER ENGINEERING**

**ELEC 691 (1½) NUMERICAL TECHNIQUES IN ELECTROMAGNETICS**

Introduction to theoretical principles, and applications of numerical techniques for solving electromagnetic field problems. Static and dynamic field problems in modern microwave and millimeter wave transmission media. Maxwell's equations and their principal solutions. Boundary and interface conditions. Deterministic field problems. Finite difference and finite element method (FDM, FEM). Method of moments (MM). Dynamic field solutions for eigenvalue problems. Spectral domain and mode matching techniques. Transmission line method (TLM). The methods are applied to study microstrip transmission lines, as well as eigenvalue and scattering problems in inhomogeneous waveguide structures. (*Prerequisite*: 591 or equivalent)

**ELEC 699 (30) PH.D. DISSERTATION**

\* These are variable content courses. Students will be permitted to take them more than once for credit to a maximum of three units, provided the course content is different from that taken previously.

(Grading: INP, COM, N or F)

# FACULTY OF FINE ARTS

Anthony Welch, B.A. (Swarthmore), M.A., Ph.D. (Harvard), Dean of the Faculty

Alan Hughes, B.A., M.A. (Tor.), Ph.D. (Birm.), Associate Dean

The Faculty of Fine Arts comprises the Departments of Creative Writing, History in Art, Theatre, and Visual Arts and the School of Music, and offers courses leading to the degree of Bachelor of Arts, in Creative Writing, and History in Art; Bachelor of Music; Bachelor of Fine Arts, in Creative Writing, Theatre and Visual Arts.

Certain courses in the Faculty of Fine Arts carry unrestricted credit in the Faculty of Arts and Science, and other courses may be chosen in keeping with the free elective regulation of that Faculty.

Students in the Faculty of Education may register for credit in any course offered by the Faculty of Fine Arts, provided that space is available and that they have the prior approval of the Education Advising Centre.

Graduate work is offered in Music, History in Art, Theatre and Visual Arts. (See section of Calendar on Faculty of Graduate Studies for details of programs and degrees.)

## Cooperative Education Program

Please refer to page 28 of the Calendar for a general description of Cooperative Education.

In the Faculty of Fine Arts, a Cooperative Education program is offered by the Department of Creative Writing. A similar option is offered by the History in Art Department through the Arts Cooperative Education Program.

Admission to and completion of Cooperative Education Programs are governed by individual departmental requirements. As a required part of the program, students are employed for specific Work Terms, each with a minimum duration of 13 weeks. This employment is related as closely as possible to the student's course of studies and individual interest.

Students may withdraw from the Cooperative Education Program at any time and remain enrolled in a degree program offered by the Department.

Details of the program in the Department of Creative Writing are outlined on page 190 of the Calendar.

Details of the Arts Cooperative Education Program are outlined on page 189.

## Qualifications for Admission

Applicants seeking admission to the Faculty of Fine Arts are governed by the regulations that appear on pages 7-11, except for the following alternative course requirements to take effect in 1986-87: successful completion of English 11, Social Studies 11, and three of the following: an approved fine arts 11 course, a language 11 course, a science 11 course, Algebra 11; applicants may include in their grade 12 courses an approved fine arts 12 course in place of one of the academic 12 courses listed on page 9, in section 1.(a)(ii).

See additional requirements for Creative Writing, Music, Theatre and Visual Arts in the chart on page 9 and in the departmental entries.

Because of limited space and resources in some programs, not all qualified candidates can be admitted; early application is therefore highly desirable.

Students from other faculties should note that enrollment in certain courses may be limited and preference given to students registered in the Faculty of Fine Arts. Consult the department or school for specific information.

## Second Bachelor's Degree

Students wishing to complete a second bachelor's degree should proceed as outlined on page 19.

## General Regulations

Calendar regulations governing registration, fees, and academic advancement (see pages 14-19), apply to all students registered in the Faculty of Fine Arts. Special regulations are set out under the departmental entries.

## Academic Advice

Students entering the Faculty for the first time should consult departmental offices for advice about course planning. If possible, this should be done before registration.

All students in the Faculty of Fine Arts are required to complete a Record of Degree Program form in consultation with their department/school preferably near the beginning of their third year of studies. The

purpose of this form is to ensure that proposed courses will meet the requirements for the degree program selected. A copy of this form is placed on file in the Records Office to be used as a record for graduating purposes.

All students registered in the Faculty of Fine Arts who intend eventually to enter the teaching profession should notice the admission requirements of the programs of the Faculty of Education. These requirements must be kept in mind in the choice of academic electives in all undergraduate degree programs.

Questions about academic planning in Fine Arts that do not relate to any specific departmental program can be referred to the Dean's Office in Room 192, MacLaurin Building.

## Degree Requirements in the Faculty of Fine Arts

Each candidate for a bachelor's degree is required:

- to have satisfied the University English requirement (see page 12);
- to present credit in a minimum of 60 units of university level courses numbered 100 and above; at least 30 of these 60 units must normally be University of Victoria courses;
- to include in these 60 units a minimum of 21 units of courses numbered at the 300 and 400 level; at least 18 of the 21 upper level units should normally be University of Victoria courses;
- to meet the specific program requirements prescribed by the Faculty for the student's declared degree program (see department/school for specifics).

## Interdepartmental Double Honours or Major

A student in one department in the Faculty of Fine Arts may concurrently satisfy the requirements of a program in a second department by completing the program requirements in the second area with the permission of both departments. Only one degree will be awarded. For example, a student majoring in History in Art may concurrently satisfy the requirements for the program in Visual Arts and thereby qualify for a B.A. with a Double Major in History in Art and Visual Arts. Conversely, a student majoring in Visual Arts may concurrently satisfy the requirements for the program in History in Art and thereby qualify for a B.F.A. with a Double Major in Visual Arts and History in Art. Students interested in taking a double honours or major program should consult the departments concerned.

## Interfaculty Programs:

Students may arrange for an Interfaculty Double Honours or Major program through the Arts and Science Advising Centre. Such programs involve satisfying the Honours or Major requirements of two disciplines in two different Faculties. Agreement to details of all such programs must be signed by the students and by representatives of the academic units involved. Students on the interfaculty program will be subject to the regulations of the Faculty in which they are registered.

Only one B.A. degree with a Double Major, a Double Honours or a Joint Major/Honours will be awarded on the recommendation of the Faculty in which the student is registered.

Students in a Major or Honours Program may also arrange to undertake a Minor in the Faculty of Arts and Science (see Minor, page 31). Particular attention is drawn to the Medieval Studies Program (see page 110) and to the Women's Studies Program in that Faculty (see page 138).

## Credit for Studies Taken at Other Postsecondary Institutions

Students who plan to undertake work at other institutions must receive prior approval from the Dean if they wish such courses to be credited towards a degree program in the Faculty of Fine Arts. This applies particularly to courses at the 300 and 400 level and to courses which are included in the last 15 units of a degree program. Upon successful completion of such work, the student must request the Registrar of the other institution to send an official transcript of record to Records Services of the University of Victoria.

Students authorized to attend another institution who accept a degree from that institution abrogate their right to a University of Victoria degree until they have satisfied the University's requirements for a second bachelor's degree.

## Pre-Architecture Planning

Since Canadian Architectural programs vary widely in their prerequisites for admission, undergraduates interested in future careers in architecture, urban planning, or landscape architecture are urged to write for this essential information to the School of Architecture they are interested in entering.

Generally, all programs emphasize the need for balance and diversification of academic background and for competence in English, Mathematics, and Physics; some programs require a portfolio of graphic work to demonstrate ability.

For advice on course selection, those students planning an architectural degree should consult the Associate Dean, Faculty of Fine Arts, or the Advising Centre, Faculty of Arts and Science.

### INTERDISCIPLINARY COURSES

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### FA 290 (1½ or 3) FINE ARTS STUDIES OFF CAMPUS

An intensive introductory course in the artistic activities or heritage of one city or region. To be offered in the appropriate location during the Summer Studies period; this course will be sponsored by one or more academic units in the Faculty of Fine Arts and will be under the supervision of a faculty member from the Department/School or Departments concerned. The course may be taken for credit more than once as the content and locale will vary from year to year. (Prerequisite: Permission of the Course Director) NO

#### FA 300 (3) INTERDISCIPLINARY SEMINAR

A seminar and studio course emphasizing an interdisciplinary approach to contemporary artistic concerns. In each year, course work will focus on a particular issue which can be explored from the distinctive points of view of the various artistic disciplines and can be used as the theme for participatory creative projects. Issues and themes may include the following: performance as interdisciplinary focus; technological explorations in contemporary art; art and the environment; the arts, popular culture, and mass media; chance procedures - aleatory method in cre-

ative disciplines. (Prerequisite: At least second year standing in the Faculty of Fine Arts) NO (3-0)

#### FA 315 (1½) CANADIAN CULTURAL POLICY

This introductory course will explore the relationship between Canadian cultural organizations, government agencies, and those involved as practitioners or administrators of the arts. Topics common to the literary, performing, and visual arts in the areas of planning, policy, management, finance, and marketing will be examined. (As the emphasis of this course may vary from time to time, it may be taken for credit more than once.) (Prerequisite: Permission of the Dean or his designate) (3-0) (Intend to offer summer 1989)

#### FA 360 (1½ or 3) INTRODUCTION TO ISSUES IN ARTS CRITICISM

An introduction to selected methods and major issues in the history and practice of criticism focusing on one or more media, such as architecture, dance, film, music, theatre, and visual arts. Topics examined may include the historic and modern aims of the critic, social roles of the critic, different critical methodologies, problems in critical interpretation, and techniques of critical writing. Depending on content, this course may be taken more than once. (Prerequisite: Permission of the Dean or his designate) (Intend to offer Summer 1988) NO(3-0)

#### FA 390 (1½ or 3) FINE ARTS STUDIES OFF CAMPUS

An intensive advanced course in the artistic activities or heritage of one city or region. To be offered in the appropriate location during the Summer Studies period; this course will be sponsored by one or more academic units in the Faculty of Fine Arts and will be under the supervision of a faculty member from the Department/School or Departments concerned. The course may be taken for credit more than once as the content and locale will vary from year to year. (Prerequisite: To be specified as required from year to year or permission of the Course Director) NO

## ARTS COOPERATIVE EDUCATION PROGRAM

The Arts Cooperative Education Program is a year round program which, through work terms of employment in business and public organizations, enables students to combine work experience with an education in the fine arts.

To qualify for admission into the Arts Coop Program, a student must be proceeding to an Honours or Major B.A., B.F.A. (other than Creative Writing) or B.Mus. degree in the Faculty of Fine Arts. The Program will begin in 1987-88 with students in the Department of History in Art. In addition, a student must be registered in at least fifteen units of course work and must have achieved at least a 5.00 Grade Point Average in first year. A formal interview to determine the student's interests, abilities and aptitudes will be required before admission.

To continue in the program, a student must be a full time student enrolled in a program leading to an Honours or Major B.A. or B.F.A. degree as listed in the previous paragraph, and must maintain a G.P.A. of at least 5.00 in the courses in the major area, and at least a 5.00 average overall.

To receive the Coop notation on graduation, a student must complete at least 15 units of approved Arts Coop courses (see below), must complete satisfactorily the Work Term Preparation Seminar prior to the first Work Term, and must perform satisfactorily in each of at least four Work Terms. Details of Work Terms are recorded on the Record of Work Terms which is attached to the student's academic record and transcript.

The Arts Coop Program is designed to provide students with an academic background and certain skills appropriate to a wide range of careers. In particular, students will be required to select a program of studies intended to ensure that they

- are capable of clear and precise oral and written communication in English
- acquire some understanding of management practice and the Canadian financial system
- are aware of the Canadian historical and political context

- are aware of the social impact of science and technology, with particular emphasis on computing.

A student's selection of Arts Coop courses will be approved by both the Arts Coop Coordinator and the responsible Departmental Adviser.

### COURSES

Students must include within the minimum of 60 units required for graduation at least 15 units from the approved list of Coop courses, excluding courses taken to satisfy departmental requirements for Major and Honours programs. The requirements in Group 1 should normally be completed by the end of third year.

**Group 1:** 9 units must be selected from the following list:

CSC	100	(1½)	Elementary Computing
COMM	100	(1½)	Introduction to Business
ECON	100	(1½)	The Canadian Economy - Problems and Policies
CW	100	(3)	Introduction to Creative Writing
FA	315	(1½)	Canadian Cultural Policy
HIST	230	(3)	History of Canada
Phil	201	(1½)	Applied Logic: I
			OR
PHIL	203	(1½)	Applied Logic: II
PHIL	222B	(1½)	Philosophy of Science: Social and Ethical Issues
POLI	470	(3)	Government in Canada

**Group 2:** 6 units must be selected from the list of Arts Coop Courses approved for students in the Faculty of Fine Arts. The list is available from the Arts Coop Coordinator.

Application forms and further information about the Arts Cooperative Education Program may be obtained from the Arts Coop Coordinator in the Office of Cooperative Education Programs. Details of the program as it is offered in the Department of History in Art are outlined on p. 193 of the Calendar.

## DIPLOMA IN FINE ARTS

The Diploma Program in Fine Arts is designed for members of the community who must balance academic study with jobs, families, or community responsibilities. It is open to any member of the community with a commitment to University level study. Applicants should normally have completed an undergraduate degree.

The Program is not appropriate for those wishing an emphasis on studio or performance areas. Rather, it stresses intellectual values of the

creative and liberal arts. It is an innovative, interdisciplinary program that is unique in Canada.

The Fine Arts Diploma Program is an extension program of the Faculty of Fine Arts, and completion of the program will lead to the Diploma in Fine Arts awarded under the authority of the Senate of the University of Victoria. The Program offers participants the choice of eleven different themes of study:

- 1) The Idea of the Fine Arts
- 2) History of the Fine Arts
- 3) World Architecture
- 4) The Middle Ages
- 5) Renaissance and Baroque
- 6) Modernism
- 7) Canada
- 8) The Mediterranean

- 9) Asia and the Pacific Rim
- 10) Cross Cultural Studies in Ancient Arts
- 11) Individual Study Program

Each of these themes requires the completion of 18 units of course credits on a full or part time basis, normally within five years.

For further information about the Program and for academic planning, please contact the Associate Dean of Fine Arts.

## DEPARTMENT OF CREATIVE WRITING

Derk Wynand, B.A., M.A. (Brit. Col.), Associate Professor and Chairman of the Department

W. David Godfrey, B.C. (Iowa), M.A. (Stanford), Ph.D. (Iowa), Professor  
Peter C. Newman, B.A., M.Com. (Tor.), D.Lit. (York), LL.D. (Brock),  
LL.D. (W. Laurier), LL.D. (Queen's), LL.D. (R.M.C.), Professor

Robin Skelton, B.A., M.A. (Leeds), F.R.S.L., Professor  
William D. Valgardson, B.A., B.Ed. (Man.), M.F.A. (Iowa), Professor  
Jack Hodgins, B.Ed. (Brit. Col.), Associate Professor  
Lawrence W. Russell, B.A. (U. of Vic.), M.A. (Calif.), Associate Professor  
Charles L. Tidler, B.A. (Purdue), Visiting Lecturer (1987-88)

### GRADUATE PROGRAM

At this time, the Department does not offer a graduate program.

### MAJOR PROGRAM

Students wishing to take a Major Program in Creative Writing will be required to take Creative Writing 100, and 6 units from Creative Writing 200, 201, 202, 203, 205, 206, one of which must be a workshop. 15 units of Creative Writing courses numbered 300 or above must be taken, including at least 3 units from 303A, 303B, 304A, 304B, 305A, 305B, and at least 3 units of workshops numbered at the 400 level. If at least 9 units of electives are chosen from courses offered by other Departments within the Faculty of Fine Arts, the degree awarded may be either the B.F.A. or the B.A. of the Faculty of Fine Arts. If fewer than nine units of electives from the Faculty of Fine Arts are chosen, then the degree awarded will be the B.A. of the Faculty of Fine Arts.

#### Interfaculty Double Major

A Fine Arts student majoring in Creative Writing may concurrently satisfy the requirements for the Major program of a Department in the Faculty of Arts and Science. Conversely, a student pursuing a Major program for the B.A. degree within the Faculty of Arts and Science may concurrently satisfy the requirements for the Major program of the Department of Creative Writing as approved for the Faculty of Fine Arts. Only one B.A. degree with a Double Major will be awarded on the recommendation of the Faculty in which the student is registered.

#### ADMISSION REQUIREMENTS AND ADVICE FOR STUDENTS ENTERING THE DEPARTMENT FOR THE FIRST TIME

1. Applicants from Secondary School  
Students must apply to the Admissions Office for acceptance to the University. Entrance to Creative Writing 100 will be restricted. In normal circumstances, Creative Writing 100 is prerequisite to all Creative Writing workshops.
2. Applicants from other Universities and Colleges  
Students who satisfy the Department's standard by either the production of written work or the passing of courses in Creative Writing at other institutions, may be given permission to enter a Creative Writing Major program at an appropriate level.
3. Applicants with Existing Degrees  
Each year, a limited number of students are permitted to enter the program to work towards a second degree, B.F.A. or B.A. A minimum of two years of further study is required. Applicants who cannot produce a manuscript of sufficient quality to allow them entry into a third year workshop may require three or four years to complete their program. (See page 19, A Second Bachelor's Degree.)

### ADMISSION TO SPECIFIC COURSES

Although the programs offered by the Creative Writing Department are intended, in the main, to serve those students who have shown some ability as writers, a number of lecture courses are also included which may be of interest and value to non-Creative Writing students. The only entrance restriction to third year lecture courses (307-314 and 318) is

second year standing. 405 and 406 require third year standing.

Only students majoring in Creative Writing or those whose declared 'first area of study' is Creative Writing will be allowed to register during early registration. All others must wait until September.

#### Second, Third and Fourth year workshops:

Students may not register for a creative writing workshop unless they have a grade of B- or higher in the appropriate prerequisite.

Students not currently registered must submit a portfolio of work and a current transcript for entrance to second term courses in January.

No student will be permitted to take more than 6 units of workshops (poetry, fiction, drama) in any given year. Special and Directed Studies courses are designed for those teaching situations which cannot be covered in regular workshops. No writing projects which might be covered in a regular workshop will be permitted within such special courses.

Subject to the regulations relating to prerequisites, courses in the Creative Writing Program are open to any student who satisfies the Department as to ability, regardless of the faculty in which the student is registered. Preference, however, will be given to students majoring in Creative Writing and those whose 'first area of study' is Creative Writing.

### CREATIVE WRITING COOPERATIVE EDUCATION PROGRAM

The Cooperative Education Programs in the Faculty of Fine Arts are described on page 188. Additional general regulations pertaining to Cooperative Education Programs of the University of Victoria are found on page 28.

The Creative Writing Cooperative Program is open to students who are undertaking a program that is acceptable to the Department of Creative Writing and who are working toward a career in writing, publishing or communications. In general, an acceptable program will be a Major in Creative Writing or a Major or Honours program in an appropriate discipline (such as English, History, History in Art, Political Science, Computer Science, Philosophy, Theatre) which will include at least nine units of upper level courses in Creative Writing as electives. Six of these nine units must be in workshops in Poetry, Fiction, Drama or Nonfiction.

Before final acceptance into the program, usually at the end of the second year, students must have taken CW 100, POLI 100, HIST 230, 3 units from PHIL 201, PHIL 203, CSC 100, CSC 110, CSC 115, LING 360, 3 units from CW 201, 202, 203, either CW 205 or 206, and must have permission of the Creative Writing Department and of the department offering their Major or Honours program if that is not Creative Writing.

Before the first work term, students must have completed 205 or 206 with a grade of B+ or higher. Students are required to maintain a B average and to complete satisfactorily four work terms.

The work terms are arranged by the Department of Creative Writing and are designed to combine practical work experience with the theoretical content of course study, with evaluation by both the employer and a faculty supervisor.

Students in the Cooperative Program may withdraw from the program at any time in order to graduate in a regular program.

Students in Cooperative Education must carry a full course load during each study term.

Students are advised that a Cooperative Education fee will be charged. Further information concerning the Creative Writing Cooperative Education program may be obtained from the Coop Coordinator.

### COURSES

(Course offering codes: Y = Sept.—Apr., F = Sept.—Dec., S = Jan.—Apr., K = May—Aug., NO = Not offered, this session)

## FIRST YEAR

**\*C W 100 (3) INTRODUCTION TO CREATIVE WRITING**

This course consists of a three hour weekly lecture/workshop. The lectures will present a nonhistorical survey of some of the basic structures in poetry, drama and fiction and will involve the students in the writing and criticism of compositions in all three genres. (*Prerequisite*: Satisfactory standing in the Language Proficiency Index or successful completion of ENGL 099) Texts: To be announced.  
L. Russell, W.D. Valgardson, D. Wynand

Y(3-0)

## SECOND YEAR

**\*C W 200 (3) THE THEORY AND PRACTICE OF LITERARY CREATION**

This is a lecture course surveying the nature of the creative process and considering the many theories about it. Use will be made of authors' worksheets, both published and in the Rare Book Room of the McPherson Library.

NO(3-0)

**\*C W 201 (3) POETRY WORKSHOP**

A workshop seminar in which the students are instructed and guided in the writing of poetry. (*Prerequisites*: 100 or equivalent)

Y(0-3)

**\*C W 202 (3) FICTION WORKSHOP**

A workshop seminar in which the students are instructed and guided in the writing of fiction. (*Prerequisites*: 100 or equivalent)  
W.D. Valgardson

Y(0-3)

**\*C W 203 (3) DRAMA WORKSHOP**

A workshop seminar in which the students are instructed and guided in the writing of drama for stage, radio, film, and television. (*Prerequisites*: 100 or equivalent)

Y(0-3)

**\*C W 205 (3) INTRODUCTION TO JOURNALISM**

This course deals with the methods of gathering news stories and of organizing the material for writing. The writing portion of the course covers the principles of the major varieties of newspaper and magazine writing including text processing. The mechanical and editorial aspects of newspaper production as they relate to the handling of news copy, and a historical, political and economic introduction to Canadian newspapers, magazines, journals, and owners, will be covered through lectures. (Not open to students with credit for journalism in 404A and 404B) (*Prerequisites*: 100 or equivalent. *Corequisite*: One of 201, 202, 203)

Y(3-0)

**C W 206 (3) PUBLISHING PROCEDURES AND PRACTICES**

This lecture course, with computer based labs, will instruct students in fundamental editorial skills which will be of use in newspaper, magazine, book or electronic publishing. Topics covered will include: language skills, style manuals, text processing, editorial roles in the publishing process, history of printing, publishing infrastructure organizations, principles of layout, distribution, costing and contract law. (Not open to students with credit in 306 from 1985-86 or earlier) (*Prerequisites*: 100 or equivalent. *Corequisite*: One of 201, 202, 203)

NO(2-1)

## THIRD YEAR

**\*C W 303A (1½) POETRY WORKSHOP: I**

(*Prerequisites*: 201 or equivalent)

R. Skelton

FS(0-3)

**\*C W 303B (1½) POETRY WORKSHOP: II**

(*Prerequisites*: 303A or equivalent)

R. Skelton

FS(0-3)

**\*C W 304A (1½) FICTION WORKSHOP: I**

(*Prerequisites*: 202 or equivalent)

J. Hodgins

FS(0-3)

**\*C W 304B (1½) FICTION WORKSHOP: II**

(*Prerequisites*: 304A or equivalent)

J. Hodgins

FS(0-3)

**\*C W 305A (1½) DRAMA WORKSHOP: I**

A workshop seminar in which the students are instructed and guided in the writing of drama for stage, radio, film and television. (*Prerequisites*: 203 or equivalent)

L.W. Russell

FS(0-3)

**\*C W 305B (1½) DRAMA WORKSHOP: II**

A workshop seminar in which the students are instructed and guided in the writing of drama for stage, radio, film and television. (*Prerequisites*: 305A or equivalent)

L.W. Russell

FS(0-3)

**\*C W 306A (1½) PUBLISHING PROCEDURES**

This seminar will deal with the process of conceptual editing, the creation and evaluation of manuscripts and proposals for the publishing industry. Students will be expected to prepare at least one major project which will be evaluated in line with current publishing practices. The impact of design, marketing and production on the generation, evaluation and reformulation process will be introduced. (*Prerequisites*: 206)

NO(0-3)

**\*C W 306B (1½) SEMINAR IN PUBLISHING PROCEDURES**

This seminar will deal with the practice and theory of electronic publishing and editing in the 1980's, including: videotext, teletext, databases, font design, networks and on line training. (*Prerequisites*: 206)

NO(2-1)

**\*C W 307 (1½) BASIC FORMS AND TECHNIQUES IN POETRY**

A lecture course surveying the structural composition and the functions of techniques in a representative group of poems. Aspects of poetics discussed will include prosody, diction, imagery, abstract form and sound pattern. (*Prerequisite*: Second year standing)

R. Skelton

F(3-0)

**\*C W 308 (1½) ADVANCED FORMS AND TECHNIQUES IN POETRY**

A lecture course surveying advanced techniques and sophisticated formal structures in poetry. Discussed will be such topics as the vilanelle, sestina, canzone, ballade, rondeau, Projective Verse and Composition by Field. (*Prerequisite*: 307)

R. Skelton

S(3-0)

**\*C W 309 (1½) BASIC FORMS AND TECHNIQUES IN NARRATIVE**

A lecture course surveying the structural composition and the function of techniques in a representative group of narrative prose works. Aspects of narrative discussed will include: theme, point of view, dialogue, scenic structure, role of narrator, metaphor, diction, plot and dialogue. (*Prerequisite*: Second year standing)

J. Hodgins

S(3-0)

**\*C W 310 (1½) ADVANCED FORMS AND TECHNIQUES IN NARRATIVE**

This seminar will examine advanced and unusual forms and techniques in narrative. (*Prerequisite*: 309)

NO(3-0)

**\*C W 311 (1½) STRUCTURE IN STAGE DRAMA**

A lecture course surveying the structural characteristics of stage drama. (*Prerequisite*: Second year standing)

NO(3-0)

**\*C W 312 (1½) STRUCTURE IN CINEMA AND TELEVISION DRAMA**

A lecture course surveying the structural characteristics of screen drama, making use of published film and television plays, and of actual films. (*Prerequisite*: Second year standing)

NO(3-0)

**\*C W 313 (1½) RECURRENT THEMES IN LITERATURE**

A lecture course surveying recurrent themes in English Literature and in other literatures in translation. (*Prerequisite*: Second year standing)

F(3-0)

**\*C W 314 (1½) CHANGING PERSPECTIVES IN LITERATURE**

A lecture course surveying the different ways in which writers have tackled similar subject matter, taking its material from English literature and other literature in translation. (*Prerequisite*: Second year standing)

R. Skelton

S(3-0)

**\*C W 315A (1½) SEMINAR IN JOURNALISM**

After a brief refresher program in general news reporting, students will be introduced to more specialized aspects of news reporting, including municipal affairs, cultural events, court and business reporting. Students will be encouraged to initiate investigative projects and to generate their own story and feature ideas. Emphasis will be placed on written assignments, awareness of sources and basic background, and the economics and history of newspapers and magazines in Canada. (*Prerequisites*: 205 or equivalent)

F(0-3)

**\*C W 315B (1½) FEATURE ARTICLE WRITING**

A seminar in which the students are instructed and guided in the writing

of full length feature articles. (*Prerequisite:* Permission of the Department)  
NO(0-3)

**C W 316A (1½) NONFICTION WORKSHOP: I**

A workshop seminar in which the students are instructed and guided in the writing of major nonfiction forms, such as biography, travel, history, social analysis. (*Prerequisites:* 201, 202 or 203 and permission of the Department)  
P. Newman S(0-3)

**C W 316B (1½) NONFICTION WORKSHOP: II**

A workshop seminar in which the students are instructed and guided in the writing of major nonfiction forms, such as biography, travel, history, social analysis. (*Prerequisites:* 316A and permission of the Department)  
P. Newman S(0-3)

**\*C W 317 (1½) THE MEDIUM OF PRINT**

This workshop seminar is designed to make writing and journalism students thoroughly familiar with the medium of print; typesetting, design, layout, and binding. Students will be introduced to the major traditional lead fonts, mechanistic methods of typesetting, and the contemporary electronic methods of typesetting and layout. Design and layout will be covered from an aesthetic and practical point of view, with sufficient introduction to modern printing methods (offset, sheet feed and web) to allow the students to see some of the mechanical restrictions on design and layout. The use of photographs and the preparation of material for four colour work will also be covered. Texts will deal with both the history of this area and current innovations. (*Prerequisite:* One of 201, 202, 203, 205, 206)  
J. Bennett F(3-0)

**\*C W 318A (1½) MULTIMEDIA**

A seminar on the artistic uses of various media: radio, film and television. (Not open to students with credit for 212) (*Prerequisite:* Second year standing)  
NO(3-0)

**\*C W 318B (1½) MULTIMEDIA**

A seminar on the artistic uses of various media: radio, film and television. (Not open to students with credit for 212) (*Prerequisite:* Second year standing)  
NO(3-0)

**\*C W 390 (3) DIRECTED STUDIES IN CREATIVE WRITING**

Under the supervision of a staff member and with the approval of the Chairman of the Department. (*Prerequisites:* 6 units in Creative Writing and permission of the instructor)

**\*C W 391 (1½) DIRECTED STUDIES IN CREATIVE WRITING**

Under the supervision of a faculty member and with the approval of the Chairman of the Department. (*Prerequisites:* 6 units in Creative writing and the permission of the instructor)

**FOURTH YEAR****\*C W 401A (1½) ADVANCED POETRY WORKSHOP: I**

(*Prerequisites:* 303A and 303B or equivalent)  
D. Wynand FS(0-3)

**\*C W 401B (1½) ADVANCED POETRY WORKSHOP: II**

(*Prerequisites:* 401A or equivalent)  
D. Wynand FS(0-3)

**\*C W 402A (1½) ADVANCED FICTION WORKSHOP: I**

(*Prerequisites:* 304A and 304B or equivalent)  
W.D. Valgardson FS(0-3)

**\*C W 402B (1½) ADVANCED FICTION WORKSHOP: II**

(*Prerequisites:* 402A or equivalent)  
W.D. Valgardson FS(0-3)

**\*C W 403A (1½) ADVANCED DRAMA WORKSHOP: I**

A workshop seminar in which the students are instructed and guided in the writing of drama for stage, radio, film and television. (*Prerequisites:* 305A and 305B or equivalent)  
L.W. Russell FS(0-3)

**\*C W 403B (1½) ADVANCED DRAMA WORKSHOP: II**

A workshop seminar in which the students are instructed and guided in the writing of drama for stage, radio, film and television. (*Prerequisite:* 403A or equivalent)  
L.W. Russell FS(0-3)

**\*C W 404A (formerly half of 404) (1½) INTRODUCTION TO PHOTOJOURNALISM**

This introduction to photojournalism emphasizes the basic aspects of black and white photography for publication, and surveys the development of photojournalism since 1839. Camera handling, exposure, lighting, film developing and printing will be covered. (Students must have a 35mm camera with light meter and they must spend about \$45 on film and printing paper. Darkroom facilities are provided by the department.) (Evaluation will be on the basis of projects.) (*Prerequisite:* Permission of the Department) (Preference will be given to C.W. Coop students.)  
T. Gore FS(0-3)

**\*C W 404B (formerly half of 404) (1½) INTERMEDIATE PHOTOJOURNALISM**

This course assumes the student is familiar with the basic techniques of black and white photography and processing. It deals with advanced topics including the sequencing of photographs, photography for publication, and advanced camera and darkroom techniques. It also examines the work of the major photojournalists in a historic context, emphasizing the development of individual style and personal statement in recent years. (Students must have a 35 mm camera with light meter and flash and they must spend about \$45 on film and printing paper. Darkroom facilities are provided by the department.) (Evaluation will be on the basis of projects.) (*Prerequisites:* 404A and permission of the Department) (Preference will be given to C.W. Coop students.)  
T. Gore FS(0-3)

**\*C W 404C (1½) ADVANCED TOPICS IN PHOTOJOURNALISM**

A workshop seminar which deals with further aspects of documentary photography including portraiture and studio lighting, large cameras and lenses. (Students must have a 35mm camera with light meter and flash and they must spend about \$50 on film and printing paper. Darkroom facilities are provided by the department.) (Evaluation will be on the basis of projects.) (*Prerequisites:* 404B and permission of the Department) (Preference will be given to C.W. Coop students.)  
T. Gore FS(0-3)

**\*C W 404D (1½) ADVANCED TOPICS IN PHOTOJOURNALISM**

A workshop seminar in photography examining recent trends including the book length photo essay, personal statements and the increasing use of colour. (Students must have a 35 mm camera with light meter and flash and they must spend about \$50 on film and printing paper. Darkroom facilities are provided by the department.) (Evaluation will be on the basis of projects.) (*Prerequisites:* 404C and permission of the Department) (Preference will be given to C.W. Coop students.)  
T. Gore FS(0-3)

**\*C W 405 (1½) INNOVATIONS IN 20TH CENTURY POETRY**

A lecture course surveying key works in 20th century poetry and discussing experimental writing. The material discussed will be taken from the literature of a number of countries. (*Prerequisite:* Third year standing)  
R. Skelton F(3-0)

**\*C W 406 (1½) INNOVATIONS IN 20TH CENTURY FICTION AND DRAMA**

A lecture course surveying key works in 20th century fiction and drama and discussing experimental writing. The material discussed will be taken from the literature of a number of countries. (*Prerequisite:* Third year standing)  
NO(3-0)

**\*C W 415 (1½) BOOK AND MAGAZINE PUBLISHING SEMINAR**

An introduction to the financial, structural, marketing, planning and management aspects of book and magazine publishing as they affect the writer and editor. Emphasis will be on the case study method, with due regard to the history of individuals, companies and organizations in Canada, especially in British Columbia. (*Prerequisite:* 205 or 206)  
NO(0-3)

**C W 416A (1½) NONFICTION WORKSHOP: I**

A workshop seminar in which the students are instructed and guided in the writing of major nonfiction forms, such as biography, travel, history, social analysis. (*Prerequisites:* 316B and permission of the Department)  
P. Newman F(0-3)

**C W 416B (1½) NONFICTION WORKSHOP: II**

A workshop in which the students are instructed and guided in the writing of major nonfiction forms, such as biography, travel, history, social analysis. (*Prerequisites:* 416A and permission of the Department)  
P. Newman F(0-3)

**\*C W 490 (3) DIRECTED STUDIES IN CREATIVE WRITING**

Under the supervision of a staff member and with the approval of the Chairman of the Department. (*Prerequisite*: 9 units in Creative Writing and permission of the instructor)

**\*C W 491 (1½) DIRECTED STUDIES IN CREATIVE WRITING**

Under the supervision of a faculty member and with the approval of the Chairman of the Department. (*Prerequisite*: 9 units in Creative Writing and the permission of the instructor)

\* Approved for elective credit in the Faculty of Arts and Science

## DEPARTMENT OF HISTORY IN ART

John L. Osborne, B.A. (Carleton), M.A. (Toronto), Ph.D. (Courtauld Inst., London), Associate Professor, Chairman of the Department  
Erica C. Dodd, B.A. (Wellesley), Ph.D. (Lond.), Visiting Professor (1987-88)

Alan Gowans, M.A. (Tor.), M.F.A., Ph.D. (Princeton), Professor (Architectural History)

Siri Gunasinghe, B.A. (Ceylon), D.U. (Paris), Professor (Buddhist and Hindu Art History)

Jan Hulsker, Ph.D. (Leiden), Adjunct Professor (1987-89)

S. Anthony Welch, B.A. (Swarthmore), M.A., Ph.D. (Harvard), Professor (Islamic Art History)

Charles R. Wicke, B.A. (Virginia), M.A. (Mexico City Coll.), Ph.D. (Ariz.), Professor (Pre-Columbian History)

Martin J. Segger, B.A., Dip.Ed. (U. of Vic.), M.Phil. (Warburg, London), Adjunct Associate Professor (1987-89)

Kathlyn Liscomb, B.A. (Tufts U.), M.A., Ph.D. (Chicago), Assistant Professor

Elizabeth Tumasonis, B.A. (College of William and Mary), M.A. (N.Y.U.), Ph.D. (Calif., Berkeley), Assistant Professor

(c) Three units to be chosen from the field of modern art or the art of the Americas: 362, 368, 375, 379, 380, 382, 385, 386.

(d) Six units of approved electives, to be chosen in consultation with the Honours Adviser, of which a minimum of 3 units must be taken outside the Department.

*Fourth Year* - 15 units to be chosen as follows:

(a) 499 (Honours Seminar).

(b) Nine units of History in Art at the 300 or 400 level, to be chosen in consultation with the Honours Adviser. A minimum of 3 units must be taken in a nonwestern subject.

(c) Three units of approved electives.

*Language requirement*: Before graduation each student will be required to demonstrate a reading knowledge of a language other than English appropriate to the area of special interest. This requirement may be satisfied either by completing six units of study in a language taught at the University or by successfully completing a language examination.

*Standing at graduation*: Both first and second class honours degrees are awarded. A First Class honours degree requires a graduating average of 6.50 or higher, as well as an average of 6.50 or higher in all courses taken in the Department at the 300 and 400 level. A Second Class honours degree requires a graduating average in the 3.50-6.49 range, as well as an average of 3.50 or higher in all courses taken in the Department at the 300 and 400 level. Third year students whose performance in the honours program falls below a grade point average of 3.50 will be required to transfer to the major program at the beginning of their fourth year. Fourth year students whose graduating average, or whose average in courses taken in the Department at the 300 and 400 level, is below the standard for a Second Class honours degree, but who otherwise meet the University requirements for graduation, will receive a B.A. with a Major in History in Art.

### GRADUATE PROGRAM

For information on the studies leading to the M.A. Degree, see page 226; for graduate courses, see page 198.

### B.A. DEGREE PROGRAMS

#### B.A. Major Program in History in Art

In addition to the general University requirements for graduation (see p.18), students taking a major in History in Art must satisfy the following requirements:

1. Successful completion of 21 units of History in Art courses, of which at least 15 units must be at the 300 or 400 level.
2. These 15 upper level units must include 3 units in each of the three following areas of study: 1) Classical, European; 2) Islamic, Asian; 3) Art of the Americas, modern art and architecture.

Students wishing to declare a major in History in Art should contact the department's undergraduate adviser for program approval.

#### Museum Studies

An important resource for the History in Art program is the Maltwood Art Museum and Gallery located at the University of Victoria. The Museum administers the Maltwood Collection (an international collection of decorative arts including special emphasis on the Arts and Crafts movement from William Morris to the 1920s) and the University Collection (an extensive collection of western Canadian contemporary art in all media).

The specialized museological library, study gallery, and varied exhibition programs give students a chance to work directly with materials and have firsthand experience in the operations of a University Museum.

#### B.A. Honours Program in History in Art

The honours program provides the possibility for more intensive study in the field of History in Art, and is intended for those who wish to continue on to graduate studies in History in Art or related professional disciplines.

Students may apply to enter the honours program after the completion of a minimum of nine units of course work in History in Art with a G.P.A. in these courses of 5.00(B) or better. Normally this would be done at the end of the second year. To graduate with a B.A. Honours in History in Art a minimum of 30 units of credit in the Department will be required (out of a total degree program of 60 units). The requirements of the third and fourth years of study are as follows:

*Third Year* - 15 units to be chosen as follows:

- (a) Three units to be selected from the field of European or Egyptian art before the modern period: 316, 317, 321, 323, 326, 328, 341, 342, 355.
- (b) Three units to be selected from the field of Asian or Islamic art: 331, 334, 335, 336, 352, 354, 356, 357, 358, 371, 372, 373, 374.

#### Program of Advanced Studies in Cultural Resource Management

The program of advanced studies in Cultural Resource Management offers a postgraduate Diploma in Cultural Conservation. The Program serves those who are currently employed professionally in museums, art galleries, historic sites, archives, building conservation, and related settings.

The curriculum of the Diploma Program in Cultural Conservation features two areas of specialization: Museum Studies and Architectural Conservation. However, a candidate may register for courses in both areas in order to obtain credit towards the Diploma.

Through continuing education offerings, candidates may enroll in the Diploma Program for part time study, either as unclassified students or for credit towards the Diploma. The courses are offered at the University of Victoria. The two Core courses are normally offered in alternate years as immersion courses during Summer Studies, or as regular courses during the Winter Session. The Special Topics courses are normally offered as immersion courses of two weeks duration periodically throughout the year.

#### Academic Regulations:

Applicants must have completed a University of Victoria Bachelor's degree or its equivalent.

The program may be completed in a minimum of one calendar year. The normal period of completion is two to three years of part time study. The program must be completed within five years.

Program: (18 units)

(a) Core courses: 486 (3), 487 (3).

(b) Special Topics: Nine units from 488A (1½), 488B (1½), 488C (1½), 488D (1½), 488E (1½), 488F (1½), 488G (1½), 488H (1½), 489A (1½), 489B (1½), 489C (1½), 489D (1½), 489E.

(c) Directed Studies: History in Art 490 (3); or 3 units from any History in Art course numbered 300 or above.

Applicants who have previously received credit for any of these courses (or their equivalents) will be allowed to substitute up to six units of courses recommended by the Program's Advisory Committee.

Students may apply to obtain up to six units of credit in advanced standing for equivalent courses or certified training.

Diploma students who fail to maintain at least a grade point average of 5.00 may be asked to withdraw from the program.

Students enrolled in the Diploma in Cultural Conservation may not normally apply credit for any course towards a degree program, e.g., B.A., B.F.A., M.A. Other students may register in individual courses in the Diploma Program as enrollment allows.

Please direct all inquiries to:  
Program of Advanced Studies in Cultural Resource Management  
Division of University Extension  
University of Victoria

#### Coop Program

The Department of History in Art participates in the Arts Cooperative Education program (see pages 28 and 188). Applications and further information may be obtained from the Office of Cooperative Education.

## UNDERGRADUATE COURSES

Only a selection of the following courses can be offered in any particular year. While there are no formal prerequisites for any senior offerings, students taking 400 level courses are warned that a good background knowledge of the subject will be assumed.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### \*H A 120 (3) INTRODUCTION TO WORLD HISTORY IN ART

An introductory survey of the visual remains of the world's principal civilizations from prehistory to the present day. (Preference in registration given to first and second year students)

K. Liscomb

Y(2-0-1)

#### \*H A 221 (1½) THE CHRISTIAN TRADITION IN WESTERN ART

An introduction to the history of Christianity in western art from the catacombs through to the present day. A selected group of major artistic and architectural monuments will be examined, with an emphasis placed on the study of Christian iconography, the continuity of imagery through a variety of historic periods, and the relationship between art and theology.

NO(3-0)

#### \*H A 222 (1½) THE CLASSICAL TRADITION IN WESTERN ART

An introduction to the influence of Greco-Roman artistic traditions on subsequent periods of European civilization. The classical inheritance in terms of both style and iconography will be examined in a variety of selected monuments from the Middle Ages through to the 20th century.

NO(3-0)

#### \*H A 231 (3) THE GREAT CULTURES OF ASIA

A survey of Asian art and architecture from 3500 B.C. to the 20th century from the Mediterranean to the Pacific. The course has several particular emphases: the major Asian religions and their arts; secular patronage by the ruling classes; the function of the arts in their societies; and the cultural interconnections between civilizations.

NO(3-0)

#### \*H A 250 (HIST 250) (1½) MIDDLE EASTERN CIVILIZATION: THE ANCIENT WORLD

A survey of the major historical developments and cultural achievements in the Ancient Near East and Egypt from the 4th millennium B.C. to the 7th century A.D. Particular emphasis upon the impact of political and social change on the evolution of civilizations.

F(3-0)

#### \*H A 251 (HIST 251) (1½) MIDDLE EASTERN CIVILIZATION: ISLAM

A survey of the major historical developments and cultural achievements in the Islamic Middle East from the 7th century A.D. to modern times.

S(3-0)

#### \*H A 260 (3) PAINTING AND SCULPTURE IN EUROPE SINCE 1750

A general introduction to European painting and sculpture from 1750 to the present day including a brief survey of related developments in North America since 1945. The course will survey such movements as Neoclassicism, Romanticism, Realism, Impressionism, Cubism, Fauvism, Expressionism, Constructivism, and Surrealism. Lectures combine formal and contextual analysis, with emphasis on cultural context.

NO(3-0)

#### \*H A 262 (3) ART BY WOMEN

A comprehensive study of women's art through history. The course will include an examination of art forms traditionally associated with women, for example, tapestry, weaving, embroidery and pottery, as well as the art of individual women painters, sculptors, photographers and printmakers.

NO(3-0)

#### \*H A 291 (1½ or 3) HISTORY OF THE MODERN WORLD IN POPULAR/COMMERCIAL ARTS

How such Popular/Commercial arts as photography, illustration, comics, animated cartoons, television, packaging, advertising, commercial design, posters and Popular/Commercial architecture, have functioned as agents to shape society and culture since ca. 1750.

A. Gowans

Y(3-0)

#### \*H A 295 (3) INTRODUCTION TO FILM STUDIES

Film as art, communication, persuasion, cultural ritual. A wide range of films and applications will be studied as well as consideration given to the writings of influential film theorists and critics such as Belazs, Eisenstein, Agee, McLuhan, Metz, Barthes, Cavel, Carpenter, Kael. Specific production techniques will be explained when related to the intention, structure, and result of the films. This course will provide a basic understanding of the place of film in the modern world and serve as introduction to critical and analytical film viewing.

NO(3-0)

#### \*H A 310 (ART 310) (1½ or 3) MEDIA AND METHODS

An examination of the techniques employed by artists throughout history. Areas of special emphasis may include architecture, drawing, painting, photography, printmaking, sculpture, and the various media used in the decorative arts, in western and nonwestern cultures. Historical, geographical, social and economic factors in the development of art technology are considered, together with the interrelation of ideas with material and techniques. Each course will consist of a series of lectures, demonstrations, museum and gallery visits as appropriate. Period and area of emphasis at the discretion of the instructor. (As the emphasis may vary from time to time, the course may be taken for credit more than once, with permission of the Department.) (Prerequisite: 120 or permission of the Department)

NO(3-0)

#### \*H A 316 (1½) ART AND ARCHITECTURE OF ANCIENT GREECE AND THE AEGEAN

An introduction to art and architecture in Greece and the Aegean from the Early Bronze Age through the Hellenistic period. Architecture, sculpture, and the minor arts are examined as evidence for cultural attitudes towards man, the gods, the physical world, and the exploration of form, colour, and movement. Emphasis is placed on the careful discussion of selected monuments illustrated through slides, casts, and photographs. (No prerequisites.) (Not open to students with credit in 315 or CLAS 371)

(3-0)

#### \*H A 317 (1½) ART AND ARCHITECTURE OF THE ROMAN WORLD

A survey of Roman art and architecture relating to the political and social development of the Roman people to their artistic expression. After an examination of Etruscan art and architecture for its formative influence on Roman attitudes, Republican and Imperial Roman art are discussed in the context of historical events. Topics include the special character of Roman art, Hellenized and Italic modes of expression, portraiture, historical reliefs, function in art, architectural space and city planning. (No prerequisites.) (Not open to students with credit in 315 or CLAS 372)

(3-0)

#### \*H A 321 (1½) LATE CLASSICAL AND EARLY CHRISTIAN HISTORY IN ART

An introductory survey of the art and architecture of the Mediterranean world from the origins of Christian art in the 3rd century A.D. to the onset of Iconoclasm in the 8th century. In addition to a detailed examination of surviving monuments and art objects, an emphasis will be placed on the sources of Christian iconography and the relationship between art, theology and liturgy. (Not open to students with credit in 325)

NO(3-0)

#### \*H A 323 (1½) BYZANTINE HISTORY IN ART

An introductory survey of the art and architecture of the Byzantine empire and its culturally dependent areas from the period of Iconoclasm through to the fall of Constantinople in 1453 and beyond. The emphasis will be on an examination of surviving monuments in Greece, Turkey, southern Italy, the Balkans, and Russia.

NO(3-0)

#### \*H A 326 (1½) EARLY MEDIEVAL HISTORY IN ART

An introductory survey of the arts and architecture of western Europe in the period ca. A.D. 600-1500. Topics to be considered will include Anglo-Saxon, Carolingian, Ottonian, and Romanesque history in art.

J. Osborne

F(3-0)

**\*H A 328 (1½) GOTHIC ART AND ARCHITECTURE**

An introductory survey of the art and architecture of western Europe from the reconstruction of St. Denis ca. 1140 to the beginnings of Renaissance art in Florence ca. 1400. The course will focus primarily on architecture in northern Europe and on painting in Italy, with a concentration on artists from the cities of Florence, Rome and Siena.

J. Osborne S(3-0)

**\*H A 331 (1½ formerly 3) ART AND ARCHITECTURE OF INDIA: BUDDHIST**

An introductory survey of Buddhist architecture, sculpture and painting. Major artistic monuments will be examined as evidence for the origin and evolution of Buddhism as a religion, viewed in the context of the social and cultural history of India. (Not open to students with credit in 330 or 332)

S. Gunasinghe F(3-0)

**\*H A 334 (1½) ART AND ARCHITECTURE OF INDIA: HINDU**

An introductory survey of Hindu architecture, sculpture and painting. Major artistic monuments will be examined as evidence for the evolution of Hinduism in the context of the social and cultural history of India.

S. Gunasinghe F(3-0)

**\*H A 335 (1½) HINDU MINIATURE PAINTING**

A detailed study of Hindu Miniatures and other forms of painting from the 15th century including Buddhist and Jaina manuscript illustrations. Attention will also be paid to other forms of popular painting. The material will be analyzed with a view to evaluating their religious and social significance as well as their artistic value.

S. Gunasinghe S(3-0)

**\*H A 336 (1½) ART AND ARCHITECTURE OF MODERN INDIA**

A study of Indian art and architecture since the arrival of Western powers and Western religions in the early 16th century to the present. The course will examine material relating to Christian missions, the British presence, the revivalist movement, and contemporary art.

S. Gunasinghe S(3-0)

**\*H A 341 (1½) THE EARLY AND HIGH RENAISSANCE**

An introductory survey of painting, sculpture, architecture and art theory during the European Renaissance (ca. 1400-1520 A.D.). The course will examine emerging styles and personalities set against changing patterns of patronage and developing art technologies.

F(3-0)

**\*H A 342 (1½) THE LATE RENAISSANCE AND BAROQUE IN EUROPE**

An introductory survey of painting, sculpture and architecture in western Europe within the context of historical movements such as the counter-reformation and the rise of absolute monarchies. The course will examine topics such as mannerism, classicism, the baroque and rococo.

S(3-0)

**\*H A 352 (formerly half of 351) (1½) THE GENESIS OF ISLAMIC ART AND ARCHITECTURE**

An examination of the background, origins, and evolution of early Islamic art and architecture from the 7th century rise of Islam to the end of the 9th century. The course will investigate the fundamentals of Islam as a faith, Islam's relationship to the pre-Islamic past and the theoretical problem of creating a new visual culture to serve a new religion and society.

NO(3-0)

**\*H A 354 (formerly half of 351) (1½) MEDIEVAL ISLAMIC ART AND ARCHITECTURE**

The high medieval art and architecture of Islam from the 10th century to the Mongol invasions of the mid 13th century. The course will focus on the medieval ideal of Islamic unity and the historic fragmentation of Islam into different, often opposed, regional and cultural entities. Major themes will be the emergence of Turkish peoples as the dominant political rulers of the Near East and the impact of Latin and Byzantine Christendom on Islamic visual culture.

A. Welch F(3-0)

**\*H A 355 (1½) THE ART AND ARCHITECTURE OF ANCIENT EGYPT**

A thorough survey of the art and architecture of Pharaonic Egypt from 3200 B.C. to the beginning of the Christian era. Through the examination of artifacts, monuments, and texts the course will investigate the influence of social and religious thought upon Egyptian art.

NO(3-0)

**\*H A 356 (1½) THE ART AND ARCHITECTURE OF THE ANCIENT NEAR EAST**

A comprehensive survey of artistic and architectural traditions in Mesopotamia, Palestine, Antolia, Iran, and related areas from 3500 B.C. to the beginning of the Muslim era (7th century A.D.). The course will emphasize the role of religious thought and social change in shaping architecture and the arts.

NO(3-0)

**\*H A 357 (formerly half of 353) (1½) AMIRATES AND SULTANATES OF THE MUSLIM MEDITERRANEAN**

The art and architecture of Islam in the lands bordering the Mediterranean (Spain, North Africa, Egypt, Palestine, Syria, and Turkey) from the mid 13th to the 20th century. Major areas of emphasis will be the Nasrid dynasty of Spain, the Mamluk dynasty of Egypt, and the Ottoman sultanate of Turkey. Particular attention will be paid to the art of calligraphy and to cross cultural connections between Islam and Western Europe and Byzantium.

S(3-0)

**\*H A 358 (formerly half of 353) (1½) ISLAM AND ASIA**

The art and architecture of the Muslim lands and peoples east of Mesopotamia (Iran, India, Central Asia, and Southeast Asia) from the 13th to the 20th century. Beginning with the Mongol invasions of Iran in the mid 13th century, this course will focus on the classic Islamic culture of Iran and its diffusion into Central Asia and India. The arts of the illustrated manuscripts (particularly Persian and Mughal painting) will be a major emphasis.

NO(3-0)

**\*H A 359 (PACI 359) (1½) ISLAMIC ART AND ARCHITECTURE IN SOUTHEAST ASIA**

A survey of the major architectural and artistic achievements of Islamic civilization in the Far East and Southeast Asia from the 16th century to the present day. Emphasis on the social, religious, and cultural impact of Islam on the arts and the subsequent development of distinctive Islamic traditions in this region.

NO(3-0)

**\*H A 362 (3) PAINTING AND SCULPTURE SINCE 1880**

A thorough study of European painting and sculpture from 1880 to the present day, concluding with a consideration of post 1945 developments in North America. The course begins with Van Gogh, Gauguin, Cezanne, and Rodin and traces the development and influence of such movements as Cubism, Expressionism, Constructivism, and Surrealism and the careers of individual artists, i.e., Matisse, Picasso, Nolde, Malevich, Kandinsky, Mondrian, and Brancusi. Lectures combine formal and contextual analysis.

E. Tumasonis

Y(3-0)

**\*H A 363 (1½) THE CINEMA AND MODERN ART MOVEMENTS**

An examination of the history of film in relationship to the major art movements of the 20th century. Students will view and analyze films by such directors as Lang, Eisenstein, Buñuel, Brakhage, and Snow; these films will be discussed in the light of their connection to such influential modern art movements as German Expressionism, Russian Constructivism, Surrealism, Abstract Expressionism, and Conceptual Art.

NO(3-0)

**\*H A 364 (1½) DOCUMENTARY FILM**

An intensive study of film as document of time, place and action. Influence of social and artistic context will be considered. Attention will be largely directed to Canadian documentary films, a leader in this genre today. Films studied may include works by Flaherty, Grierson, Lorentz, Riefenstahl, Wiseman, National Film Board.

NO(3-0)

**\*H A 365 (1½) EXPERIMENTAL AND ART FILM**

A survey of 'pure' film as art which exists only in the form of film. Influence of other art forms as well as technical and economic aspects will be considered. Attention will be largely directed to Canadian experimental and art film. Films studied may include works by McLaren, Brakhage, Van Der Beek, Knowlton, Lipsett, May, Eames.

NO(3-0)

**\*H A 366 (1½) INTRODUCTION TO HISTORY IN CINEMA**

A general introduction to film as an art form of world importance. Film will be considered historically as a product of time and place as well as a medium influencing many aspects of our lives. There will be consideration of genres, of directors' styles, of technical aspects, and the relationship of film to other media. (Preference given to third and fourth year students)

F(2-2)

**\*H A 367 (1½) INTRODUCTION TO HISTORY IN CINEMA**

A more specialized investigation into cinema with attention to the use of myth and symbol. Significant cinema genres, selected directors and national styles, including Canadian, will be examined. (Preference given to third and fourth year students, and to those students who have completed 366) S(2-2)

**\*H A 368 (3, formerly 1½) HISTORY OF CANADIAN ART**

History of the visual arts in Canada from the 16th through the 20th centuries with special emphasis on painting and sculpture. NO(3-0)

**\*H A 371 (PACI 371) (1½) EARLY CHINESE ART**

An introductory survey of Chinese art from the Neolithic period through the Tang dynasty. Topics include the ritual vessels of the Bronze age, the impact of the Indian religion of Buddhism on Chinese arts, the rise of landscape painting, and the classic era of figure painting. Chinese histories and theories of the arts will be read in translation. K. Liscomb F(3-0)

**\*H A 372 (PACI 372) (1½) LATER CHINESE ART**

An introductory survey of Chinese art from the Five Dynasties era through the Ch'ing dynasty. The emphasis will be on the various genres and styles of painting, and on the role of the educated elite as painters, patrons, critics and theorists. Other topics include later Chinese sculpture and ceramics. K. Liscomb S(3-0)

**\*H A 373 (PACI 373) (1½) EARLY JAPANESE ART**

An introductory survey of Japanese art which traces the history of Japan's absorption and transformation of continental (Chinese and Korean) influences from prehistoric times through the Kamakura period. The emphasis is on Buddhist arts and the rise of the long narrative handscrolls known as *emakimono* during the Heian and Kamakura periods. NO(3-0)

**\*H A 374 (PACI 374) (1½) LATER JAPANESE ART**

An introductory survey of Japanese art from the Muromachi through the Edo periods. The emphasis is on the impact of Zen Buddhism on several art forms; the new castles with their paintings on sliding doors and folding screens; and the various schools of painting and printmaking active during the Edo period, an era during which revivals of native styles flourished along side experiments inspired by Chinese and Western art. NO(3-0)

**\*H A 375A (1½) (formerly half of 375) PRE-COLUMBIAN ART**

The art of central and southern Mexico and northern Central America before 1492. This culture area called Mesoamerica was characterized by high civilization. (*Prerequisite:* None) C.R. Wicke F(3-0)

**\*H A 375B (1½) (formerly half of 375) PRE-COLUMBIAN ART**

The art of South America before 1492 in the Andean area characterized by high civilization. (*Prerequisite:* None) C.R. Wicke S(3-0)

**\*H A 379A (1½) (formerly half of 379) HISTORY OF LATIN AMERICAN ART**

The art of Latin America of the Colonial Period: from the Conquest to Independence (1492-1821) with emphasis on New Spain. (*Prerequisite:* None) C.R. Wicke F(3-0)

**\*H A 379B (1½) (formerly half of 379) HISTORY OF LATIN AMERICAN ART**

The art of Latin America from Independence (1821) to the present with emphasis on Mexico. (*Prerequisite:* None) NO(3-0)

**\*H A 382A (formerly half of 382) (1½) NORTH AMERICAN INDIAN ART**

An introduction to North American Indian art from its emergence in prehistoric times to the present. Culture areas covered are the Northwest coast, the Arctic (Inuit and Eskimo), and the Northern Athabaskan. (*Prerequisite:* None) C.R. Wicke F(3-0)

**\*H A 382B (formerly half of 382) (1½) NORTH AMERICAN INDIAN ART**

An introduction to North American Indian art from its emergence in prehistoric times to the present. Culture areas covered are the Great

Plains, Southwestern U.S., Eastern Woodlands, and California. (*Prerequisite:* None) C.R. Wicke S(3-0)

**\*H A 385 (formerly half of 381, 481) (1½) HISTORY OF NORTH AMERICA IN ARCHITECTURE**

How architecture expressed and was instrumental in effecting the transplantation and development of European civilization in North America (Canada, U.S.A., Mexico) from the 16th century to approximately 1840. NO(3-0)

**\*H A 386 (formerly half of 381, 481) (1½) HISTORY OF NORTH AMERICA IN ARCHITECTURE**

How architecture expressed and was instrumental in effecting the development of society in Canada and the U.S.A., from approximately 1840 to the present. NO(3-0)

**\*H A 420 (1½, formerly 3) SPECIAL STUDIES IN MEDIEVAL ART**

A different aspect or period of medieval art will be selected for study each year. Emphasis will be placed on a detailed study of a limited number of works rather than a general survey. (May be taken more than once, depending on circumstances) NO(3-0)

**\*H A 430 (1½ or 3) SPECIAL STUDIES IN INDIAN ART**

An intensive study of a selected aspect or area of Buddhist or Hindu art. The course may be taken for credit more than once in different areas. S. Gunasinghe S(3-0)

**\*H A 440 (1½, formerly 3) ITALIAN RENAISSANCE ART**

An intensive study of the painting, sculpture and architecture of Italy from 1400 to 1550. Special attention will be given to the major monuments of Florence, Rome, Siena, and Venice and the artistic achievements of these cities will be considered in terms of their historical and religious significance. NO(3-0)

**\*H A 441 (3) NORTHERN RENAISSANCE**

An intensive survey of the painting of Northern Europe from 1300 to 1550. The major monuments of these areas will be considered in terms of their historic and religious significance. NO(3-0)

**\*H A 450 (1½ or 3) TOPICS IN ISLAMIC ART AND CIVILIZATION**

This course will involve intensive study of some special aspect or area of Islamic civilization. Content may vary each year. (May be taken for credit more than once depending on circumstances) NO(3-0)

**\*H A 451 (1½) ISLAMIC ARCHITECTURE**

An examination of the architectural traditions of Muslim peoples from Spain to South Asia with emphasis on the historical development of Islam's architectural idiom, the geographic dispersion of its forms, the relationship of architecture to its urban context, and the role of architectural patrons. NO(3-0)

**\*H A 455 (1½) PERSIAN PAINTING**

A study of the history and development of painting in Iran from the 13th to the 19th centuries. The course will examine the major masters, patrons, and style of Persian miniature painting and will trace the influence of Persian painting on the arts of Mughal India and Ottoman Turkey. NO(3-0)

**\*H A 460 (3) SPECIAL STUDIES IN 20th CENTURY ART**

Intensive study of modern movements (e.g., Cubism, Surrealism, Expressionism) or specific problems (art and politics, critical theory) in 20th century art. Combination of topics will vary. NO(3-0)

**\*H A 462 (HIST 462) (3) ART AND REVOLUTION**

Examines the role of the artist (mainly through painting and graphics) in the major social and political revolution of modern times. Major emphasis on the French, Russian, and Chinese revolutions but some consideration of political art in other revolutions and movements of social protest. NO(3-0)

**\*H A 463 (1½ or 3) TOPICS AND ISSUES IN POLITICAL ART**

Studies in political art, that is, art which directly refers to social and political issues, rather than the question of the social background and function of art in general. Although the specific periods and topics covered vary, each seminar examines issues of the artists' social conscience and aesthetic effect, state control and manipulation of the arts, art as instrument for and expression of social change. NO(3-0)

**\*H A 464 (3) CONTEMPORARY ART**

An intensive study of major art movements in Europe and North America since World War II. Course includes an examination of recent painting and sculpture, as well as considering less conventional art forms, such as installations, earthworks, and performance art.

E. Tumasonis Y(3-0)

**\*H A 470 (1½ or 3) SPECIAL STUDIES IN FAR EASTERN ART**

Intensive studies of special aspects of Chinese or Japanese art. Course content will vary. (This course may be taken for credit more than once in different topics with permission of the Department)

NO(3-0)

**\*H A 471 (1½) EARLY CHINESE PAINTING**

An advanced level study of Chinese painting from the Chou dynasty through the Sung dynasty. The emphasis will be on tracing the major stylistic periods and on studying the relationship of painting to philosophy, political history, literature and calligraphy. Chinese histories and theories of painting will be read in translation. (Students should have completed 371 or the equivalent.)

NO(3-0)

**\*H A 472 (1½) LATER CHINESE PAINTING**

An advanced level study of Chinese painting which covers the Yuan, Ming, and Ch'ing dynasties. During these three dynasties, painters interpreted earlier painting traditions in order to express their own ideas and feelings. The emphasis will be on discovering how major changes took place within this basically conservative framework, and on the role of Chinese critics and art historians. (Students should have completed 372 or the equivalent.)

NO(3-0)

**\*H A 473 (1½) JAPANESE PAINTING**

An advanced level survey of Japanese painting and printmaking from prehistoric times through the Edo period. Topics include Buddhist painting, narrative handscrolls, Chinese influenced ink painting, the development of various styles suitable for large paintings on sliding doors and folding screens, and the many schools of Edo Japan: Rimpa, Nanga, Maruyama-Shijo, and Ukiyo-e. (Students should have completed 373 or the equivalent.)

NO(3-0)

**\*H A 474 (1½) UKIYO-E PRINTS AND PAINTING**

An advanced level survey of the Ukiyo-e school of painting and prints in Edo Japan. Major artists of this school will be discussed in the context of the popular culture of that era, which also created a new style of novels and drama (kabuki). (Students should have completed 374 or the equivalent.)

NO(3-0)

**\*H A 475 (PACI 475) (1½ or 3) THE ART AND ARCHITECTURE OF SOUTHEAST ASIA**

An examination of the sculpture and architecture of Southeast Asia of the precolonial periods, with emphasis on those of Cambodia and Indonesia. These works will be studied within their religious, social and political contexts.

(3-0)

**\*H A 483 (formerly half of 485, 390) (1½) ADVANCED SURVEY OF HISTORY IN ART**

This course affords an opportunity for third and fourth year students to elect a basic survey of history in art on a level appropriate to their maturity. Emphasis will be on history horizontally structured across the world in given epochs, rather than on line of progress, using as data major architectural monuments interpreted in terms of social function. Period covered: prehistoric to ca. A.D. 1200.

A. Gowans F(3-0)

**\*H A 484 (formerly half of 485, 390) (1½) ADVANCED SURVEY OF HISTORY IN ART**

Same description as 483. Period covered: ca. A.D. 1200 to present.

A. Gowans S(3-0)

**H A 486 (3) INTRODUCTION TO MUSEUM STUDIES**

Collection, organization, maintenance and presentation of museum materials. History and purpose of collections, principles of collections management and research, preservation, care and handling of collections, public presentation of exhibitions, museum organization and management. Topic emphasis at the discretion of the instructor; may involve fieldwork. Depending on instructor and areas covered, and with departmental permission, this course may be taken more than once. (Prerequisites: None)

(3-0)

**H A 487 (3) INTRODUCTION TO HERITAGE CONSERVATION**

Care, preservation and maintenance of historic sites and buildings; the conservation of architecture within a museum and urban context; pro-

grams and practices in Canada and other countries; procedures for site examination and evaluation; materials pathology; site planning, development and management. Case studies and field work may be required. Topic emphasis at the discretion of the instructor. Depending on the instructor and areas covered, and with departmental permission, this course may be taken more than once. (Prerequisites: None)

Y(3-0)

Further information on all courses in the H A 488 and 489 series may be obtained from the office of the Program of Advanced Studies in Cultural Resource Management, Division of University Extension and Community Relations.

**H A 488 (1½) SPECIAL STUDIES IN MUSEOLOGY**

This course may be taken more than once, in different fields, at the discretion of the Department.

NO(3-0)

**H A 488A (1½) ADMINISTRATION OF MUSEUMS AND ART GALLERIES**

Topics will include: administration of collections policies; accountability, financial management, and program balance; administrative theory and practice; personnel administration; law in the museum and gallery.

NO(3-0)

**H A 488B (1½) COLLECTIONS MANAGEMENT**

Topics include: collections policies; terminology; classification and cataloguing; accessioning and deaccessioning; loans; gifts; importing and exporting. The course may be offered with an emphasis in computers and the management of collections.

NO(3-0)

**H A 488C (1½) EXHIBIT DESIGN AND DEVELOPMENT**

Topics include the planning, design, production, and evaluation of exhibits. Problems in installation will be considered. Students will be assigned a project in the design of scale model exhibits.

NO(3-0)

**H A 488D (1½) CURATORIAL CARE OF ARTIFACTS**

Studies in the conservation of artifacts in metal, ceramics, wood, bone, leather, and other materials. Special emphasis is given to the analysis of environmental factors and the nature of materials. The course includes demonstrations in handling, storage, and packing techniques. Assignments normally will include the preparation of condition reports.

NO(3-0)

**H A 488E (1½) CURATORIAL CARE OF PAPER**

Studies in the conservation of paper artifacts, particularly archival materials and works of art on paper. Topics include: the monitoring and control of environmental conditions; storage; handling; treatments. Projects involving practices in the conservation of paper will be assigned.

NO (3-0)

**H A 488F (1½) CURATORIAL CARE OF PAINTINGS**

Studies in the conservation of paintings on panel, canvas, and other surfaces. Topics include: documentation of condition; nature of materials and historical uses of media; remedial conservation; curatorial care and maintenance of collections; connoisseurship.

NO (3-0)

**H A 488G (1½) INTERPRETATION TECHNIQUES AND PROGRAM EVALUATION**

The course examines interpretation as a method of communicating with the public in museums, art galleries, historic sites, parks, and related settings. The theory and application of interpretation will be considered. The course emphasizes strategies for implementing program ideas, planning, setting objectives, evaluation, and the development of skills.

NO(3-0)

**H A 488H (1½) TOPICS IN MUSEUM STUDIES**

This course will involve intensive study of some special aspect or area of museum studies. Content may vary each year. (May be taken for credit more than once depending on circumstances)

NO(3-0)

**H A 488J (1½) CURATORSHIP**

This course examines the philosophy of collecting and the application of disciplinary research in the museum context. Topics include collections and acquisition policies, object oriented research methods, documentation analysis, information management and the communication of research through exhibitions, films and print publications.

(3-0)

**H A 489 (1½) SPECIAL STUDIES IN ARCHITECTURAL CONSERVATION**

This course may be taken more than once, in different fields, at the discretion of the Department.

NO

**H A 489A (1½) STUDIES IN URBAN AND RURAL CONSERVATION**

Topics in the preservation and rehabilitation of historic urban and rural areas. The historical, aesthetic, economic, social, and legal aspects of heritage area planning will be considered. Case histories and planning models will be discussed. An applied studies project normally will be assigned. NO(3-0)

**H A 489B (1½) SURVEY METHODS IN BUILDING CONSERVATION**

An intensive examination of methods employed in surveying and recording historic architecture. Topics include: documentation; measured drawings; regular and rectified photography; scale models. NO(3-0)

**H A 489C (1½) EVALUATION OF HISTORIC ARCHITECTURE**

An examination of the theory and practice of evaluating historic architecture. Topics include: surveys, research methods; stylistic analysis; preparation of inventories; evaluation criteria; scoring techniques. NO(3-0)

**H A 489D (1½) STUDIES IN BUILDING CONSERVATION**

Theoretical and applied studies in the conservation of historic architecture. Course topics include site history, pathology, preservation and repair of materials (wood, masonry, brick, plasterwork, metalwork), chromochronology. Laboratory sessions on the examination and analysis of materials will be conducted. NO(3-0)

**H A 489E (1½) TOPICS IN ARCHITECTURAL CONSERVATION**

This course will involve intensive study of some special aspect or area of architectural conservation. Content may vary each year. (May be taken for credit more than once depending on circumstances) NO(3-0)

**\*H A 490 (1½ or 3) DIRECTED STUDIES**

This course may be taken more than once, in different fields, at the discretion of the Department. (3-0)

\* Approved for elective credit in the Faculty of Arts and Science.

**H A 499 (3) HONOURS SEMINAR**

This course is intended to instruct fourth year honour students in problems and methodology of advanced research.

J.L. Osborne

Y(3-0)

**GRADUATE COURSES**

Only a selection of the following courses will be offered in any particular year. All courses numbered between 501 and 590 may be taken more than once, in different specific topics.

- HA 501 (1½) PROBLEMS IN THE HISTORY OF ART HISTORY: I
- HA 502 (1½) PROBLEMS IN THE HISTORY OF ART HISTORY: II
- HA 520 (1½) SEMINAR IN MEDIEVAL ART: I
- HA 521 (1½) SEMINAR IN MEDIEVAL ART: II
- HA 530 (1½) SEMINAR IN THE ART OF INDIA: I
- HA 531 (1½) SEMINAR IN THE ART OF INDIA: II
- HA 540 (1½) SEMINAR IN RENAISSANCE ART: I
- HA 541 (1½) SEMINAR IN RENAISSANCE ART: II
- HA 550 (1½) SEMINAR IN ISLAMIC ART: I
- HA 551 (1½) SEMINAR IN ISLAMIC ART: II
- HA 560 (1½) SEMINAR IN MODERN ART: I
- HA 561 (1½) SEMINAR IN MODERN ART: II
- HA 565 (1½) SEMINAR IN PRE-COLUMBIAN ART: I
- HA 566 (1½) SEMINAR IN PRE-COLUMBIAN ART: II
- HA 570 (1½) SEMINAR IN FAR EASTERN ART: I
- HA 571 (1½) SEMINAR IN FAR EASTERN ART: II
- HA 580 (1½) TOPICS IN CULTURAL CONSERVATION: I
- HA 581 (1½) TOPICS IN CULTURAL CONSERVATION: II
- HA 590 (1½) DIRECTED STUDIES
- HA 595 (1½) THESIS TUTORIAL
- HA 599 (9) THESIS (Grading INP, COM, N or F)

**SCHOOL OF MUSIC**

Gordana Lazarevich, Artist and Licentiate Dip. (Tor.), B.Sc., M.Sc., (Juilliard), Ph.D. (Columbia), Professor and Director of the School

Murray Adaskin, O.C., LL.D. (Leth., U. of Vic.), D.Mus. (Bran.), D.Mus. (Windsor) Adjunct Professor (1986-88)

Franklin E. Churchley, A.R.C.T., L.R.C.T. (Royal Cons. Mus.), B.Mus. (Tor.), M.A., Ed.D. (Columbia), Professor

George Corwin, B.S. (Ithaca), M.A., D.M.A. (Rochester), Professor  
Paul Kling, Artist's Diploma (State Cons. of Music, Brno), Artist's Diploma (Academy of Musical Arts, Prague), Professor (violin)

Rudolf Komorous, Diploma (State Cons. of Music, Prague), Artist's Diploma (Academy of Musical Arts, Prague)

Erich P. Schwandt, B.A., M.A., Ph.D. (Stanford), Professor  
Bernard Turgeon (Opera School, Tor. Cons.), Professor (voice, opera workshop)

Robin Wood, F.R.A.M., LL.D. (U. of Vic.), Lansdowne Professor of Music (piano)

Phillip T. Young, B.A. (Bowdoin), M.Mus. (Yale), Professor  
John A. Celona, B.M., M.A. (San Fran. St.), Ph.D. (Calif., San Diego), Associate Professor

Richard Ely, B.M. (Montana), M.M. (Ill.), Associate Professor (french horn)

Jaroslav Karlovsky, Artist's Diploma (State Cons. of Music, Prague), Artist's Diploma (Academy of Musical Arts, Prague), Associate Professor (viola)

William Kinderman, B.A. (Dickinson Coll.), Ph.D. (Calif., Berkeley), Associate Professor

Michael M. Longton, B.M., M.M. (Brit. Col.), Associate Professor  
Bruce E. More, B.Mus. (Brit. Col.), M.Mus., M.M.A., D.M.A. (Yale), Associate Professor

Louis D. Ranger, B.Mus. (Juilliard), Associate Professor (trumpet)  
Harald M. Krebs, B.Mus. (Brit. Col.), M.Phil., Ph.D. (Yale), Assistant Professor

Michael R. Lyons, B.Mus., M.Mus. (W. Ont.), Assistant Professor  
Lanny Pollet, B.Mus. (Eastman), M.Mus. (U. of Vic.), Assistant Professor (flute)

Bruce Vogt, A.R.C.T. (Tor.), B.Mus. (W. Ont.), M.Mus. (Tor.), Assistant Professor (piano)

Douglas Collinge, B.Sc., M.Mus. (U. of Vic.), Lecturer

Alexandra Pohran, B.Mus. (Tor.), Lecturer

M. Elaine Daniels, Administrative Officer

**Part-time Lecturers (individual tuition) 1987-88 Session:**

Gordon Clements, B.Mus., M.Mus. (U. of Vic.) (saxophone)

Hana Dedecius, Dipl. (Kromeriz Conservatoire), Dipl. (Prague) (cello)

Eugene A. Dowling, B.M. (Mich. St.), M.M. (Northwestern) (tuba)

Thomas G. Eadie, B.M., M.M. (Eastman) (trombone)

Salvador Ferreras, B.Mus. (Windsor) (percussion)

Susan Y. Young, B.A. (Brigham Young), M.Mus. (Calgary) (voice)

Helen Hall, B.Mus. (Acadia), M.A. (U. of Vic.) (piano)

James Hunter (cello)

Eva Kinderman, Perf. Dip. (Vienna) (piano)

Taka Kling, M.M. (Tokyo), Artist's Dip. (Vienna) (harp)

May-Ling Kwok, M.M. (Ind.) (piano)

Christopher Light, B.Mus. (Brit. Col.) (double bass)

Ian McDougall, B.Mus., M.Mus. (Brit. Col.) (big band)

Kathleen McLean, Dipl. (Curtis) (bassoon)

Bryan Townsend, B.Mus. (McGill) (guitar)

Teresa Turgeon (voice and opera coach)

Winifred Wood, A.R.A.M. (London) (piano)

**GRADUATE PROGRAMS**

For information on studies leading to the M.A., M.Mus. and Ph.D. degrees, see page 228; for graduate courses, see page 202.

**UNDERGRADUATE PROGRAMS**

For students who wish to prepare themselves for careers in music, graduate study, etc., the School of Music offers majors in Composition and Theory, Music Education, Music History and Literature, Comprehensive (formerly General) Program, and Performance, leading to the degree of Bachelor of Music.

## ADMISSION REQUIREMENTS

Enrollment in the Bachelor of Music program is limited at the present time to approximately 180 students.

### 1. Applicants from Secondary School

Students must apply to the Admissions Office for acceptance to the University and in addition must make separate application to the School of Music for acceptance to the program. The School requires that all prospective students demonstrate ability in an accepted performance area (instrument or voice). For this purpose a personal audition is recommended; if an audition is not possible a high quality tape recording may be submitted instead. All applicants must submit two letters of recommendation from qualified musicians. Auditions are held each year beginning in late March. Students are urged to apply as early as possible since places cannot be guaranteed for qualified applicants once positions are filled.

Audition appointments and further information may be obtained from:

School of Music  
University of Victoria  
P.O. Box 1700, Victoria, B.C. V8W 2Y2  
(604) 721-7902

### 2. Applicants from Other Universities and Colleges

The procedure is the same as that described in the preceding paragraph. The Director of Admissions will consult the School for advice on transfer credit for music courses that have been completed elsewhere. This credit and School admission procedures will determine into which year of studies the student will be accepted. No students are admitted into the final, fourth year.

## PROGRAM OF COURSES

All B.Mus. students, regardless of their eventual choice of major, are required to take a common first year program.

Year 1	
101A	1
101B	1
110	3
140	2
170	1
180*	1
181*	1
English 100 level	3
Nonmusic elective	3
	16

\* Not required for students whose principal performance area is voice.

In addition to the courses listed above, students intending to major in Composition must enroll in 105, and students wishing to major in Music Education must register in M E 101 (Secondary) or M E 106 (Elementary).

All B.Mus. students are required to demonstrate proficiency at the keyboard. Students who fail to satisfy this requirement by the end of the first year may be required to complete 236.

At the end of the common first year, each student will declare a choice of major and will be assigned a faculty adviser who will assist in selecting appropriate elective courses, ensure that program requirements are satisfied and oversee year to year progress. Acceptance into the major program of the student's choice and continuance in that major must be approved by the appropriate division of the School. A student whose progress is judged to be unsatisfactory may be refused permission to continue in the chosen original major.

Students who intend to pursue a career in Music Education will register in the B.Mus. program with a major in Music Education. Those completing this program will automatically qualify for admission to the Post Degree Professional Program with the same priority status as regular B.Ed. students.

Exceptions to the following program requirements can be made only in special cases and with the written approval of the Director.

### Major in Composition and Theory

Year 2		Year 3		Year 4	
201	2	301	3	Two of: 401A, 401B	
205	3	305	3	401C, 401D	
240	2	306	1½	405	3
270	1	307	1½	440	2

350	3	340	2	Music elective	3
Nonmusic elective	3	Nonmusic elective	3	Nonmusic elective	3
	14		14		14

See Ensemble Requirements below.

### Major in Music History and Literature

Year 2		Year 3		Year 4	
Music history elective	3	Music history elective	3	Music history elective	3
201	2	301	3	Two of: 401A, 401B	
240	2	340	2	401C, 401D	
270	1	390	3	440	2
Music or non-music elective	3	Nonmusic elective	3	499	3
Nonmusic elective	3			Nonmusic elective	3
	14		14		14

See Ensemble Requirements below.

### Major in Comprehensive Program

Year 2		Year 3		Year 4	
201	2	301	3	Two of: 401A, 401B	
240	2	340	2	401C, 401D	
270	1	*Music electives	6	440	2
*Music electives	6	**Nonmusic elective	3	*Music elective	3
**Nonmusic elective	3			**Nonmusic elective	3
				Nonmusic elective or music elective	3
	14		14		14

See Ensemble Requirements below.

\*Music electives must include:

- (a) at least 3 units of music history above the 110 level
- (b) either 350 or 356.

\*\*Nonmusic electives will normally include:

- (a) 6 units of language courses, preferably German, Italian, or French
- (b) 3 units of art history, theatre history, or classics
- (c) 3 units of philosophy, mathematics or a science.

### Major in Performance

Year 2		*Year 3		Year 4	
201	2	301	3	Two of: 401A, 401B	
245	6	345	6	401C, 401D	
270	1	Music history elective	3	445	6
Music or non-music elective	3	Nonmusic elective	3	447	3
Nonmusic elective	3			Nonmusic elective	3
	15		15		15

See Ensemble Requirements below.

\* Piano majors are advised to take 360 in addition to the courses listed.

### Major in Music Education - Secondary (Instrumental)

Year 2		Year 3	
201	2	301	3
240	2	340	2
270	1	356	3
350	3	One of: 330, 331, 332, 333	
One of: 236, 330, 331, 332, 333	1½	M E 216	1
M E 201	1½	*M E 301	1½
Music history elective	3	ED-D 406	3
	14		15
Year 4 (Degree Year)		**Year 5 (Professional Year in Education)	
Two of: 401A, 401B, 401C, 401D	3	See Special Music Program, page 155, for course requirements	
440	2		
One of: 330 331, 332 333	1½		
M E 316	1		
ED-D 401	1½		
M E 401	1½		
Music or non-music elective	3		
	13½		

See Ensemble Requirements below.

**Major in Music Education – Secondary (Choral)**

Year 2		Year 3	
201	2	301	3
240	2	340	2
270	1	ME 319	1
M E 300	1½	*M E 301	1½
M E 201	1½	ED-D 406	3
M E 219	1	356	3
Second Teaching Area	1½	(Additional units may be	
Music or non-		taken in 2nd teaching area)	1-3
music elective	3		
	13½		14½-16½
<b>Year 4 (Degree Year)</b>		<b>**Year 5 (Professional Year</b>	
Two of: 401A, 401B, 401C,		in Education)	
401D	3	See Special Music program, page	
440	2	156, for course requirements	
M E 419	1		
ED-P 498 or ME 401	1½		
ED-D 401	1½		
Nonmusic elective			
(2nd teaching area)	3		
320 or Music history			
elective	3		
	15		

See Ensemble Requirements below.

\* Includes school experience (equivalent of ED-P 398).

\*\* Before Year 5, an Introductory Psychology course and Theatre 150 are recommended. A grade point average of 4.00 in the upper level music courses and a grade point average of 3.00 in the immediately preceding two years (30 units) is required.

**Major in Music Education – Elementary**

Year 2		Year 3	
201	2	301	3
240	2	340	2
270	1	One of: M E 303A,	
M E 219	1	303B, 303C	1½
M E 300	1½	M E 319	1
M E 306	3	One of: M E 350,	
PSYC 100	3	400B, 400C	1½
Elective	3	MATH 160 A and B (or other	
		approved Math)	3
		ED-B 430	1½
		Music elective	3
	16½		16½
<b>Year 4 (Degree Year)</b>		<b>Year 5 (Professional Year</b>	
Two of: 401A, 401B, 401C,		in Education)	
401D	3	See Special Music	
440	2	Program, page 156,	
One of: M E 303A,		for course requirements.	
303B, 303C	1½		
One of: M E 350,			
400B, 400C	1½		
ED-B 331	1½		
ED-D 300	1½		
ED-P 297	1½		
Foundations	3		
Total	15½		

See Ensemble Requirements below.

**ENSEMBLE REQUIREMENTS**

All students in the B.Mus. program are required to participate in ensembles as follows:

**Major in Composition and Theory**

Year 2: 280 or 281

Year 3: One of: 280, 380, 281, 381

Year 4: One of: 280, 380, 480, 281, 381, 481

**Major in Music History and Literature**

Year 2: 280 and 281

Year 3: 380 and 381

Year 4: 480 and 481

**Major in Comprehensive Program**

Year 2: 280 and 281

Year 3: 380 and 381

Year 4: 480 and 481

**Major in Performance**

(a) Orchestral Instruments

Year 2: 280 (Orchestra or Wind Symphony) and 281

Year 3: 380 (Orchestra or Wind Symphony) and 381

Year 4: 480 (Orchestra or Wind Symphony) and 481

(b) Keyboard Instruments and Guitar

Year 2: 280 (Chorus) and 281

Year 3: 381

Year 4: 481

(c) Voice

Year 2: 280 and 281

Year 3: 380 and 381

Year 4: 480 and 481

**Major in Music Education – Secondary (Instrumental and Choral)**

Year 2: 280

Year 3: 380 and 281

Year 4: Two of: 480

381

Education 218

**Major in Music Education – Elementary**

Year 2: 280

Year 3: 281

Year 4: 380 and 381

**UNDERGRADUATE COURSES**

Not all courses can be offered every year. A list of available courses can be obtained from the School of Music each Spring.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

\* Approved for elective credit in the Faculty of Arts and Science.

**\*MUS 115 (3) LISTENING TO MUSIC**

A course for the nonprofessional, designed to enhance understanding and appreciation of Western music. Assignments include listening to recordings and attendance at selected University concerts. (Not open to B.Mus. students)

P.T. Young

Y(3-0)

**\*MUS 215 (3) TWO COMPOSERS**

Intended for the general listener. In each term, the music of a major composer will be studied, affording comparison of two eras, styles, aesthetics and/or genres, as well as a broad view of each composer's representative works in several media. For example: Beethoven and Stravinsky; Mozart and Duke Ellington; Monteverdi and Wagner. (Prerequisite: 115) (Not open to B.Mus. students)

NO(3-0)

**LANGUAGE OF MUSIC****\*MUS 101A (1) INTRODUCTION TO LANGUAGE OF MUSIC**

The rudiments of music, musical notation and an introduction to strict counterpoint. (Prerequisite: Evidence of musicianship acceptable to the School) (Not open to students with credit in 100 or 100A) (Corequisite: 170)

F(3-0)

**\*MUS 101B (1) LANGUAGE OF MUSIC: I**

A continuation of 101A, introducing harmonic concepts and practices. (Not open to students with credit in 100 or 100B.) (Prerequisite: 101A or permission of the School. Corequisite: 170)

S(3-0)

**MUS 170 (1) BASIC MUSICIANSHIP: I**

Beginning sight-singing, dictation and corresponding keyboard skills. (Corequisite: 101A or 101B)

Y(0-3)

**\*MUS 201 (2) LANGUAGE OF MUSIC: II**

The structural principles, harmonic and contrapuntal practices of tonal music, with particular attention to the music of the late 18th and the 19th centuries, explored through analysis and composition. (Prerequisite: 101B or permission of the School. Corequisite: 270) (Not open to students with credit in 300)

Y(3-0)

**MUS 270 (1) BASIC MUSICIANSHIP: II**

A continuation of 170. (Corequisite: 201 or permission of the School)

Y(0-3)

**\* MUS 300 (3) LANGUAGE OF MUSIC: III**

A detailed investigation of structural principles and style in tonal music, with particular attention to the music of the late 18th and 19th centuries. Continued studies in writing, analysis, and keyboard. (*Prerequisite:* 200 or permission of the School) (Not offered after 1988-89) Y(3-1)

**MUS 301 (3) (formerly 400) LANGUAGE OF MUSIC: III**

Theory, techniques and practice of 20th century music. (Not open to students with credit for 400) (*Prerequisite:* 101B or permission of the School) (Not offered until 1989-90) NO(3-0)

**\* MUS 400 (3) LANGUAGE OF MUSIC: IV**

Theory, techniques, and practice of 20th century music. (*Prerequisite:* 300 or permission of the School) (Not offered after 1989-90) Y(3-0)

**MUS 401A (1½) TOPICS IN ANALYSIS**

The study of particular analytical approach (e.g. Rameau, Schenker) and its applications to a variety of musics. (May be taken more than once for credit in different areas) (*Prerequisite:* 201 or permission of the School) (Not offered until 1990-91) NO(3-0)

**MUS 401B (1½) BAROQUE COUNTERPOINT**

The contrapuntal language of J.S. Bach, his contemporaries and immediate predecessors, explored through writing and analysis. (*Prerequisite:* 201 or permission of the School) (Not offered until 1990-91) NO(3-0)

**MUS 401C (1½) ACOUSTICS OF MUSIC**

The physics of musical sound and the acoustics of musical instruments. Timbre, scales, tuning and temperament. An introduction to psycho-acoustical issues. (*Prerequisite:* 201 or permission of the School) NO(3-0)

**MUS 401D (1½) JAZZ THEORY**

Theoretical aspects of jazz, including its harmonic and formal characteristics. (*Prerequisite:* 201 or permission of the School) NO(3-0)

**COMPOSITION****MUS 105 (2) INTRODUCTION TO COMPOSITION**

This course is designed to enhance one's understanding of and development in compositional systems, processes and techniques through written exercises and assignments related to 20th century musical idioms. (Open to all music students; nonmusic students by permission of the School) Y(2-0)

**MUS 204 (2) MUSIC COMPOSITION FOR NONMAJORS: I**

Composition class for nonmajors. (Attendance at the Master Class Seminar required.) (*Prerequisite:* 105 or permission of the School) Y(1-1)

**MUS 205 (3) MUSIC COMPOSITION: I**

Individual lessons with members of the Music Composition faculty. Compositions for solo and small ensembles. (Attendance required at Composition Master Class Seminar. For Music Composition majors.) (*Prerequisite:* Admittance to Music Composition major) Y(2-1)

**MUS 304 (2) MUSIC COMPOSITION FOR NONMAJORS: II**

Composition class for nonmajors. (Attendance at the Master Class Seminar required.) (*Prerequisite:* 204 or 205 or permission of the School) Y(1-1)

**MUS 305 (3) MUSIC COMPOSITION: II**

Individual lessons with members of the Music Composition faculty. Compositions for solo, small and large ensembles. (Attendance required at Master Class Seminar. For Music Composition majors.) (*Prerequisite:* 205 or permission of the School) Y(2-1)

**MUS 306 (1½) RECORDING TECHNIQUES**

Introduction to the use of audio equipment, including tape recorders, mixers, speakers, amplifiers, PA systems. Practical work includes recording sessions and work in a studio. (*Prerequisite:* Permission of the School) F(2-4)

**MUS 307 (1½) ELECTRONIC MUSIC: I**

Introduction to electronic music. Practical experience in a classical studio, with voltage controlled synthesizers, MIDI, and other electronic music techniques. (*Prerequisite:* 306 and permission of the School) S(2-4)

**MUS 404 (2) MUSIC COMPOSITION FOR NONMAJORS: III**

Composition class for nonmajors. (Attendance at the Master Class Seminar required.) (*Prerequisite:* 304 or 305 or permission of the School) Y(1-1)

**MUS 405 (3) MUSIC COMPOSITION: III**

Individual lessons with members of the Music Composition faculty. Majors will complete and have performed a graduating work of advanced and significant scope. (Attendance at Master Class Seminar required. For Music Composition majors.) (*Prerequisite:* 305 or permission of the School) Y(2-1)

**MUS 407 (3) ELECTRONIC MUSIC: II**

Advanced work in electronic music, including study of digital and analog synthesis and computer controlled systems. (*Prerequisite:* 307 and permission of the School) Y(0-3)

**MUSIC HISTORY AND LITERATURE****\* MUS 110 (3) INTRODUCTION TO MUSIC HISTORY AND LITERATURE**

A survey of music literature with emphasis on Western music from plainsong to the 20th century, in the context of general cultural history. The course assumes some experience in listening as well as familiarity with the rudiments of musical notation. Y(3-1)

**\*MUS 311 (3) MUSIC OF THE MEDIEVAL PERIOD AND THE RENAISSANCE**

(Enrollment limited) (*Prerequisite:* 110) NO(3-0)

**\* MUS 312 (3) MUSIC OF THE BAROQUE ERA**

A study of music from c. 1660 - c. 1750. (Enrollment limited) (*Prerequisite:* 110) NO(3-0)

**\* MUS 313 (3) MUSIC FROM c. 1730 TO THE LATE 19th CENTURY**

(Enrollment limited) (Not open for credit to those who have taken 314) (*Prerequisite:* 110) NO(3-0)

**\* MUS 320 (1½ or 3) WORLD MUSIC**

An introduction to the study of music of Asia, Africa, and aboriginal America, and the relationship of this music to the Western tradition. (Enrollment limited) (*Prerequisite:* 110) NO(3-0)

**\* MUS 321 (3) HISTORY OF MUSICAL INSTRUMENTS**

A survey of the development of Western European instruments from antiquity to the present day. (Enrollment limited) (*Prerequisite:* 110) P.T. Young Y(3-0)

**\* MUS 322 (1½ or 3) THE COMPOSER, HIS STYLE AND MUSIC**

A study of works of a major composer in the period from the 15th to 20th centuries. Emphasis will be placed on analysis, style and performance practice. Students may register for this course more than once. (Enrollment limited) (*Prerequisites:* 110 and 101B) S(3-0)

**\* MUS 323 (1½ or 3) FORMS AND GENRES IN MUSIC**

The study of a single musical form or genre, for example, opera, symphony, sonata. (Students may register for this course more than once.) (Enrollment limited) (*Prerequisites:* 110 and 101B) NO(3-0)

**\* MUS 324 (3) MUSIC IN CANADA**

The history of music in Canada from the time of Cartier (1534) to the present. (Enrollment limited) (*Prerequisites:* 110 and 101B) Y(3-0)

**MUS 325 (3) THE HISTORY OF JAZZ**

A survey of the development and growth of jazz, with emphasis on the major stylistic periods, the principal soloists and composers and the great recorded performances. An extensive collection of listening assignments will be on reserve in the Music and Audio Department of McPherson Library. (Prerequisites: 110 and 101B) Y(3-0)

**MUS 326 (1½) TOPICS IN THE HISTORY OF JAZZ**

Students should consult the School for the topic to be considered.) (May not be available to students with credit in 323, History of Jazz, or 325) NO(3-0)

**MUS 390 (1½ or 3) SPECIAL STUDIES**

With the consent of the School, a student who has demonstrated a capacity for independent work may undertake an individual project. (Prerequisite: 110) (3-0)

**MUS 490 (1½ or 3) SPECIAL STUDIES**

With the consent of the School, a student who has demonstrated a capacity for independent work may undertake an individual project. (Prerequisite: 110) (3-0)

**MUS 499 (3) SEMINAR IN MUSICOLOGY**

For Music History majors only. Seminar will include the graduating essay. Y(3-0)

**INSTRUMENTAL AND CHORAL TECHNIQUES****MUS 236 (1½) KEYBOARD**

Group instruction in piano. Students who already possess adequate keyboard skills are not permitted to register for this course. One or two terms: (2-2) or (1-1)

**MUS 330 (1½) STRINGS**

Group instruction in playing all orchestral string instruments. Y(1-1)

**MUS 331 (1½) BRASSES**

Group instruction in playing all orchestral brass instruments. (2-2)

**MUS 332 (1½) WOODWINDS**

Group instruction in playing all orchestral woodwind instruments. (2-2)

**MUS 333 (1½) PERCUSSION**

Group instruction in playing all orchestral percussion instruments. NO(2-2)

**MUS 334 (1½) VOICE**

Group instruction in vocal production. NO(2-2)

**MUS 350 (3) ORCHESTRATION**

Study of instrumentation and orchestration. (Prerequisite: 101B) Y(3-0)

**MUS 356 (3) INTRODUCTION TO CONDUCTING**

Fundamental conducting techniques as applied to instrumental and vocal music. (Prerequisite: Permission of the School) Y(2-1)

**MUS 456 (3) CONDUCTING**

(Prerequisites: 356 and audition) Y(2-1)

**APPLIED MUSIC**

Instruction in voice or in an instrument will be provided by the faculty of the School of Music. The courses listed below are normally available only to students registered in the B.Mus. program. B.Mus. students who fail to maintain a load of at least 9 units (12 in the case of performance majors) will be required to withdraw from any course in the 140-440 (or 145-445) series in which they are registered.

**MUS 140 (2) INDIVIDUAL TUITION**

Lessons in instrument or voice. (Prerequisite: Evidence of marked musical ability demonstrated by audition) Y(0-1)

**MUS 145 (3) SEMINAR IN PERFORMANCE**

Individual tuition and weekly class including discussion of repertoire, pedagogy, and techniques of ensemble performance. (Prerequisite: Recommendation of the School) (For Performance Majors only) Y(1-2)

**MUS 240 (2) INDIVIDUAL TUITION**

Lessons in instrument or voice. (Prerequisite: 140) Y(0-1)

**MUS 245 (6) SEMINAR IN PERFORMANCE**

Individual tuition and weekly class including discussion of repertoire, pedagogy, and techniques of ensemble performance. (Prerequisite: 140 or 145, and recommendation of the School) (For Performance Majors only) Y(1-2)

**MUS 340 (2) INDIVIDUAL TUITION**

Lessons in instrument or voice. (Prerequisite: 240) Y(0-1)

**MUS 345 (6) SEMINAR IN PERFORMANCE**

Individual tuition and weekly class including discussion of repertoire, pedagogy, and techniques of ensemble performance. (Prerequisite: 245 or permission of the School) (For Performance Majors only) Y(1-2)

**† MUS 360 (1½) SEMINAR IN ACCOMPANYING**

Principles of accompanying (vocal and instrumental); coaching of selected repertoire. (Prerequisite: 240 or 245, or permission of the School) Y(1-1)

**MUS 440 (2) INDIVIDUAL TUITION**

Lessons in instrument or voice. (Prerequisite: 340) (This course may be taken a second time by students in a fifth year of study who have the consent of the Dean of Fine Arts. Such students may be required to participate in ensembles.) Y(0-1)

**MUS 445 (6) SEMINAR IN PERFORMANCE**

Individual tuition and weekly class including discussion of repertoire, pedagogy, and techniques of ensemble performance. (Prerequisite: 345) (For Performance Majors only) Y(1-2)

**MUS 447 (3) GRADUATING RECITAL**

(Prerequisite: 345) (For Performance Majors only)

**PERFORMANCE GROUPS**

**MUS 180 (1) ENSEMBLES** (Grading: COM, N or F) Y(0-4)

**MUS 181 (1) CHAMBER MUSIC** Y(0-3)

**MUS 280 (1) ENSEMBLES** (Grading: COM, N or F) Y(0-4)

**MUS 281 (1) CHAMBER MUSIC** Y(0-3)

**MUS 380 (1) ENSEMBLES** (Grading: COM, N or F) Y(0-4)

**MUS 381 (1) CHAMBER MUSIC** Y(0-3)

**MUS 480 (1) ENSEMBLES** (Grading: COM, N or F) Y(0-4)

**MUS 481 (1) CHAMBER MUSIC** Y(0-3)

180-480, Ensembles, include the University Orchestra, University Wind Symphony, University Chorus, and University Chamber Singers.

181-481, Chamber Music, include the standard chamber groups as well as Collegium Musicum, New Music Ensemble (Sonic Lab), Opera Ensemble, Jazz Ensemble, and Accompanying.

480 and 481 may be taken a second time by students in a fifth year of study who have the consent of the Dean of Fine Arts.

**GRADUATE COURSES**

Students should consult with the School of Music concerning the courses offered in any particular year.

Apart from the following courses, graduate students are encouraged to take an active part in the performing groups and musical life of the University.

**† MUS 500 (1½ or 3) SELECTED PROBLEMS IN THEORY AND ANALYSIS**

(3-0)

**MUS 501 (1½ or 3) SEMINAR IN HISTORICAL MUSICAL NOTATIONS**

(3-0)

**MUS 502 (3) MUSICAL AESTHETICS AND THE THEORY OF CRITICISM**

NO(3-0)

**MUS 503 (1½) INTRODUCTION TO GRADUATE STUDY AND MUSIC BIBLIOGRAPHY**

(All students in musicology must register for this course in their first term of graduate study.) F(3-0)

- MUS 504 (1½ or 3) SEMINAR IN PERFORMANCE PRACTICE** (3-0)
- MUS 505 (1½ or 3) HISTORY OF MUSICAL INSTRUMENTS** (3-0)
- MUS 506 (1½) MUSICAL ACOUSTICS** NO(3-0)
- MUS 507 (3) ELECTRONIC MUSIC** Y(0-3)
- MUS 540 (1) INDIVIDUAL TUITION**  
Lessons in instrument or voice. (Approval of the student's Supervisory Committee is required.) Y(0-1)
- † MUS 545 (4) MAJOR INSTRUMENT STUDY**  
Individual tuition and master class. (For M.Mus. candidates in performance only) Y(2-2)
- † MUS 550 (1½) STUDIES IN PARTICULAR ERA OF MUSIC HISTORY** (3-0)
- † MUS 551 (1½ or 3) STUDIES IN PARTICULAR FORMS OR GENRES IN MUSIC HISTORY** (3-0)
- † MUS 552 (1½ or 3) STUDIES IN THE MUSIC, LIFE AND TIMES OF INDIVIDUAL COMPOSERS** (3-0)
- † MUS 555 (3) INDIVIDUAL TUITION IN COMPOSITION** Y(0-1)
- \*\* MUS 560 (1½ or 3) SEMINAR IN MUSICOLOGY**  
(May be taken more than once for credit to a maximum of 3 units in any 8 month session) (3-0)
- MUS 561 (1½ or 3) SEMINAR IN COMPOSITION**  
(May be taken more than once for credit to a maximum of 3 units in any 8 month session)

- †† MUS 580 (1) ENSEMBLES** (Grading: COM, N or F) Y(0-4)
- †† MUS 581 (1) CHAMBER MUSIC** Y(0-3)
- † MUS 590 (1½ or 3) DIRECTED STUDIES**
- MUS 596 (3) LECTURE-RECITAL**  
A lecture-recital of substantial duration, its topic likely related to the student's thesis. For students in the M.A. program in musicology with performance.
- MUS 597 (6) M.MUS. GRADUATING COMPOSITION(S)**  
Grading: INP, INC, COM or F)
- MUS 598 (0) M.MUS. PRACTICUM**  
Degree recital required for performance candidates in final year. (Grading: INC, COM, N or F)
- § MUS 599 M.A. THESIS** (Grading: INP, COM, N or F)
- † MUS 690 (1½ or 3) DIRECTED STUDIES**
- § MUS 699 PH.D. DISSERTATION** (Grading: INP, COM, N or F)
- \*\*** All students in musicology must register for this course each year they are in attendance.
- †** May be taken more than once at the discretion of the School.
- ††** Performance candidates must register for both of these courses in each year of study. Candidates for the M.A. degree in musicology with performance must register in one of these courses in each year of study; they will be assigned either to 580 or 581, depending upon the students' needs and the needs of the School.
- §** Credit to be determined.

## DEPARTMENT OF THEATRE

- Michael R. Booth, B.A. (Brit. Col.), M.A., Ph.D. (London), Professor and Chairman of the Department
- Murray D. Edwards, B.A. (Sask.), M.A., Ph.D. (Columbia), Adjunct Professor (1987-89)
- Giles W. Hogle, B.A. (Miami), M.A., Ph.D. (Northwestern), Professor
- Alan Hughes, B.A., M.A. (Tor.), Ph.D. (Birm.), Professor
- Mavor Moore, B.A. (Tor.), D.Litt. (York), Adjunct Professor (1986-88)
- John F. Krich, A.B. (Baldwin-Wallace), M.F.A. (Yale), Associate Professor
- Harvey M. Miller, B.A., M.Ed., M.A., Ph.D. (Pittsburgh), Associate Professor
- Linda Hardy, B.A. (Brock), M.A. (Tor.), Assistant Professor
- Irene M. Pieper, B.A. (Calif.), M.A. (San Fran. St.), Assistant Professor
- Juliana M. Saxton, B.A. (Tor.), Assistant Professor
- Paul Batten, B.A. (Brit. Col.), Visiting Lecturer (1987-88)
- Sheila R. Lee, B.A. (Newcomb Coll.), M.F.A. (Tulane), Visiting Lecturer (1987-88)
- Kathryn V. Peet, B.A. (N.Y.State), M.A. (Col.), Visiting Lecturer (1986-87)
- N. Bindon Kinghorn, Senior Academic Assistant and Part time Lecturer
- Kazimierz Piesowocki, Senior Academic Assistant and Part time Lecturer
- Gysbertus A. Timmermans, B.F.A., M.F.A. (U. of Vic.), Senior Academic Assistant

### GRADUATE PROGRAMS

For information on studies leading to the M.A. and M.F.A. degrees, see page 234; for graduate courses, see page 208.

### UNDERGRADUATE PROGRAMS

The Bachelor of Fine Arts in Theatre is an extensive program intended for students who wish to continue their studies in graduate or professional schools and who wish to prepare for a career in community, educational or professional theatre. The philosophy of the Theatre Department is based on the concept that the complex art of the theatre should be studied in all aspects and that by its nature it must be studied in performance. Through all courses and productions the students learn the fundamental performing and technical skills as they study the historical, contemporary and educational practice of the theatre arts.

The Department offers the undergraduate student a choice between an Honours Program in Theatre History and a Theatre Major Program; in

the latter, Comprehensive and Special options are available (see Program of Courses).

Students will be required to take part in rehearsals and performances associated with departmental projects.

**Theatre Work Outside the Department:** The Department does not prohibit students from taking part in external theatre activities, but it is concerned that such activities may affect a student's studies. Therefore, all theatre students must consult either their departmental adviser or the Director of Theatre before accepting any major theatre commitment not related directly to Department of Theatre activities. They should consider the extent of the projected commitment in time and energy, with particular attention to the following:

1. the number of classes which may have to be missed;
2. whether course assignments can be completed by deadline;
3. whether tests, quizzes or examinations will be missed.

### ADMISSION PROCEDURES

Enrollment in the Bachelor of Fine Arts in theatre program is limited at the present time.

#### 1. Applicants from Secondary School

Students must apply to Admissions Services for acceptance to the University and in addition must make separate application to the Theatre Department. Details of the letter of application may be obtained from the Secretary of the Department. An interview (and therefore a campus visit) is required. Interviews are held each year, normally beginning in late March. If distance precludes a visit, tentative acceptance may be granted until requirements are satisfied in September. Students are urged to apply as early as possible since places cannot be guaranteed for qualified applicants once positions are filled.

#### 2. Applicants from Other Universities and Colleges

The procedure is the same as that described in the preceding paragraph. The Director of Admissions will consult the Department for advice on transfer credit for theatre courses that have been completed elsewhere. This credit and Department admission procedures will determine into which year of studies the student will be accepted.

### PROGRAM OF COURSES

To graduate with a B.F.A. in Theatre, students must complete 60 units of course work of which at least 30 units will be in Theatre and no fewer than 15 outside the Department. In accordance with regulations on page 18, at least 21 units must be numbered at the 300 or 400 level; in addi-

tion, at least 15 such units at 300 or 400 level must be in Theatre.

In the first year, students will be required to take Theatre 100, 105, 120 and three units of English. In subsequent years the student will be required to complete Theatre 200, 205, and at least 4½ units in the following courses: Theatre 306, 307, 308, 310, 311, 316, 317, 318, 410, 411, 414. Additional required courses are outlined in the Honours and Theatre Major Program below.

In second year each student will be assigned an adviser who will develop a program of studies related to the student's needs and abilities. Students may choose either a Theatre Major Program or the Honours Program in Theatre History.

**THEATRE MAJOR PROGRAM**

Students who choose the Theatre Major Program must select one of two program options: 1) Comprehensive or 2) Special (Acting, Directing, Design, Production and Management, Theatre/Drama in Education, Theatre History). Acceptance and continuance in a Special Program is subject to approval by the Department.

A student in a Special Option normally must complete at least thirty-six units of Theatre course work, of which at least nine units must be in his specialization and three units in a related area as determined by the student's adviser. The thirty-six units of Theatre courses must also include the required courses listed above.

**Comprehensive Option:** Those students who wish to enroll in a course of study which will permit the exploration of a wide range of techniques and aspects of Theatre, in a generalized approach, should choose the Comprehensive Option.

**Special Option:** Students wishing to emphasize a particular aspect of Theatre should choose the Special Option. This permits the student to concentrate upon one of six specific areas: Acting, Directing, Design, Production and Management, Theatre/Drama in Education, Theatre History.

Students may enter the Option in Acting at the beginning of the third year. Enrollment is normally limited to twelve students per year by selection and is probationary for two weeks. Since enrollment in 220, 250 and 260 is limited to 15 students per section, a selection must take place at the end of the first year. However, admission to second and third year acting courses does not guarantee permission to enter or to continue in the Option. Transfer students who signify their intent to enter this Special Option must audition, normally before the beginning of the academic year. Further regulations are listed in the Department Handbook.

A student wishing to enter the Option in Theatre/Drama in Education required in Education should be aware that several choices exist within the Option, and that to ensure admission to the required third year courses it may be necessary to satisfy prerequisites in the second year. All students wishing to enter the Option should therefore see an academic adviser before registering for second year.

Students may enter the Option in Production and Management at the beginning of the third year. Enrollment is limited; selection is by interview.

**Acting**

	<i>First Year</i>		<i>Second Year</i>	
100	3	200	3	
105	3	205	3	
120	3	220	3	
English	3	250	1½	
Elective	3	260	1½	
	15	Elective	3	
			15	
	<i>†Third Year</i>		<i>Fourth Year</i>	
320	3	420	3	
350	3	450	3	
360	3	460	3	
306, 307, 308, 310, 311,		306, 307, 308, 310, 311,		
316, 317, 318,		316, 317, 318		
410, 411, 414	1½ or 3*	410, 411, 414	1½ or 3*	
Electives	4½ or 3	Electives	4½ or 3	
	15		15	

† Audition required

**Directing**

	<i>First Year</i>		<i>Second Year</i>	
100	3	200	3	
105	3	205	3	
120	3	240	3	
English	3	Electives	6	
Elective	3	(220 is recommended)	15	
	15		15	

	<i>Third Year</i>		<i>Fourth Year</i>	
306, 307, 308, 310, 311,		306, 307, 308, 310, 311,		
316, 317, 318,		316, 317, 318,		
410, 411, 414	(0-4½)*	410, 411, 414	0-4½*	
330	3	430	3	
340	3	342	3	
341	3	Elective	4½-9*	
Elective	1½-6*			
	15			15

**Design**

	<i>First Year</i>		<i>Second Year</i>	
100	3	200	3	
105	3	205	3	
120	3	240	3	
English	3	341 or 342	3	
Elective	3	Elective	3	
	15		15	

	<i>Third Year</i>		<i>Fourth Year</i>	
306, 307, 308, 310, 311,		306, 307, 308, 310, 311,		
316, 317, 318,		316, 317, 318,		
410, 411, 414	0-4½*	410, 411, 414	0-4½*	
One of: 340, 341, 342	3	One of: 340, 341, 342	3	
330	3	Electives	7½-12*	
Electives	4½-9*			15
	15			

**Production and Management**

	<i>First Year</i>		<i>Second Year</i>	
100	3	200	3	
105	3	205	3	
120	3	240	3	
English	3	299 or elective	3	
Elective	3	Elective	3	
	15		15	

	<i>†Third Year</i>		<i>Fourth Year</i>	
306, 307, 308, 310, 311,		306, 307, 308, 310, 311,		
316, 317, 318,		316, 317, 318,		
410, 411, 414	0-4½*	410, 411, 414	0-4½*	
305	3	405	3	
395	3	499	3	
One of: 340, 341, 342	3	One of: 340, 341, 342	3	
Electives	1½-6*	Electives	1½-6*	
	15		15	

† Interview and permission required.

**Theatre/Drama in Education - Elementary**

	<i>First Year</i>		<i>Second Year</i>	
100	3	200	3	
105	3	205	3	
120	3	181	3	
Approved English	3	ED-B 331	1½	
* Approved elective	3	ED-P 197	1½	
	15	* Approved elective	3	
			15	

	<i>Third Year</i>		<i>Fourth Year</i>	
306, 307, 308, 310, 311	*	306, 307, 308, 310, 311,		
316, 317, 318		316, 317, 318,		
410, 411, 414	0-3*	410, 411, 414	1½-4½*	
382, 341, 342 or 383	3	381	3	
330	3	394	1½	
341 or 342	3	Elective	1½	
ED-D 305	3	** Approved electives	3-7½	
** Approved elective	0-3*			15
	15			

\*\* For those wishing to take the Post Degree Professional Program (Elementary) the following courses are required:

Canadian history	3
Mathematics	3
Introductory psychology	3
Laboratory science (geography not acceptable)	3

**Theatre/Drama in Education - Secondary**

	<i>First Year</i>		<i>Second Year</i>	
100	3	200	3	
105	3	205	3	
120	3	Theatre elective	3	
181	3	Elective	3	

Approved English	3	Elective	3
	15		15
<i>Third Year</i>		<i>Fourth Year</i>	
306, 307, 308, 310, 311, 316, 317, 318 410, 411, 414	0-3*	306, 307, 308, 310, 311, 316, 317, 318, 410, 411, 414	1½-4½*
330	3	382	3
383	3	Electives	7½-19½*1½
ED-D 406	3		
ED-B 471	1½		
ED-P 398	1½		
Elective	0-3*		
	15		15

**Theatre History**

<i>First Year</i>		<i>Second Year</i>	
100	3	200	3
105	3	205	3
120	3	Electives	9
English	3		
Elective	3		
	15		15

*Third and Fourth Years*

306, 307, 308, 310, 311, 316, 317, 318, 410, 411, 414	7½		
490	3		
Approved electives	6		
Electives	13½		
	30		

\* Students are required to take a minimum of 4½ units of Theatre History from this list. Students are reminded that a minimum of 15 units of elective credit must be taken outside the Department.

**B.A. HONOURS PROGRAM IN THEATRE HISTORY**

The Honours Program normally begins in a student's third year. Students may apply to enter the Honours program after the completion of a minimum of 6 units of course work in Theatre with a G.P.A. in these courses of 5.00 (B) or better. To graduate with a B.A. Honours in Theatre History, a minimum of 30 units of Theatre is required; at least 15 units shall be in designated Theatre History courses at 300 and 400 level listed below, and 6 units in approved, related disciplines.

Designated Theatre History courses are THEA 306, 307, 308, 310, 311, 316, 317, 318, 410, 411, 414, 390, 391, 392, 490.

To receive a First Class Honours degree a student must obtain an average of at least A - (7.0) in designated Theatre History courses at 300 and 400 level, and have a graduating average of at least 6.50.

To receive a Second Class Honours degree a student must obtain an average of at least B+ (6.0) in designated Theatre History courses at 300 and 400 level, and have a graduating average of at least 5.00.

A third year Honours student whose performance falls below a G.P.A. of 3.50 in that year, or of 5.00 in designated Theatre History courses, will normally be required to withdraw from the Honours program.

A fourth year student whose graduating grades are lower than the level required for Second Class honours, but who otherwise meets the University's requirements for graduation, will receive a B.F.A. in the Special Program in Theatre History if the B.F.A. requirements have been met.

**UNDERGRADUATE COURSES**

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**THEA 150 (1½) SPEECH COMMUNICATION**

This course is designed to present an overview of the theoretical bases of speech communication, and develop the vocal, verbal and nonverbal skills of organization and presentation required in speaking effectively. (Required for all Education students. Others may be admitted if space is available: applicants should attend the first lecture and lab of the term.) (Prerequisite: 15 units of University credit) FS(1-3)

**THEATRE HISTORY****\*THEA 100 (3) INTRODUCTION TO THE HISTORY AND LANGUAGE OF THE THEATRE**

A survey of the history of western theatre from its beginnings to the closing of the English playhouses in 1642. Early forms, conventions and styles are compared with those of the contemporary theatre. Students are required to attend performances of local theatres. Y(2-0-2)

**\*THEA 200 (3) THEATRE FROM FRENCH CLASSICISM TO THE PRESENT**

A survey of theatre history in the Western tradition from the theatre of Corneille to the present day. Introduction to library research methods in theatre history. (Prerequisite: 100 or permission of the Department) H.M. Miller Y(3-0)

**\*THEA 306 (1½) STUDIES IN THEATRE OF THE ANCIENT WORLD**

Theatre in ancient Greece or Rome. (Students should consult the Department for the topic to be considered. This course may be taken more than once in different topics, with permission of the Department.) (Prerequisite: 200 or permission of the Department)\* This year: Greek comedy.

The plays of Aristophanes and Menander will be studied as acting scripts and as documents in the history of performance. Evidence of acting style and conventions, theatre structures, and the relationship of Greek comedy to contemporary society will be examined.

(\*Note on prerequisites: this year permission of the Department will normally be given to students who have taken or are enrolled in either CLAS 330 or CLAS 332, or who have completed THEA 100 with a final grade of B or higher.)

A. Hughes F(3-0)

**\*THEA 307 (1½) STUDIES IN MEDIEVAL THEATRE**

Theatre of the Middle Ages. (Students should consult the Department for the topic to be considered. This course may be taken more than once in different topics, with permission of the Department.) (Prerequisite: 200 or permission of the Department) NO(3-0)

**\*THEA 308 (1½) STUDIES IN RENAISSANCE THEATRE**

The Renaissance in the theatre of Italy, France and England. (Students should consult the Department for the topic to be considered. This course may be taken more than once in different topics, with permission of the Department.) (Prerequisite: 200 or permission of the Department) NO(3-0)

**THEA 310 (1½) SEMINAR IN THEATRE HISTORY: I**

Intensive study of a specific period or genre. The topics for consideration will change each year. Students may take this course for credit more than once. (Students in Arts and Science may take this course once only.) (Prerequisite: 200 or permission of the Department)

This year: An examination of the technology, production methods, and acting styles of the 19th century English theatre, with special emphasis on the Victorian period.

M.R. Booth F(3-0)

**THEA 311 (1½) SEMINAR IN THEATRE HISTORY: II**

Intensive study of a specific period or genre. The topics for consideration will change each year. Students may take this course for credit more than once. (Students in Arts and Science may take this course once only.) (Prerequisite: 200 or permission of the Department) NO(3-0)

**\*THEA 316 (1½) STUDIES IN BAROQUE, ROCOCO AND NEOCLASSICAL THEATRE**

Theatre in the 17th and 18th centuries. (Students should consult the Department for the topic to be considered. This course may be taken more than once in different topics, with permission of the Department.) (Prerequisite: 200 or permission of the Department) NO(3-0)

**\*THEA 317 (1½) STUDIES IN 19th CENTURY THEATRE**

Theatre in the 19th century. (Students should consult the Department for the topic to be considered. This course may be taken more than once in different topics, with permission of the Department.) (Prerequisite: 200 or permission of the Department)

This year: Melodrama and Melodramatic Acting  
Some sessions will take the form of workshops, culminating in a class production. A. Hughes S(3-0)

**\*THEA 318 (1½) STUDIES IN 20th CENTURY THEATRE**

Modern theatre. (Students should consult the Department for the topic to be considered. This course may be taken more than once in different topics, with permission of the Department.) (Prerequisite: 200 or permission of the Department)

This year: American Theatre  
A survey of the 20th century American Theatre. This course will emphasize the theatre and drama of Broadway and the regional theatre of the United States from 1940. H.M. Miller S(3-0)

**\*THEA 410 (1½) SEMINAR IN THEATRE HISTORY: III**

Intensive study of a specific period or genre. The topics for consideration will change each year. Students may take this course for credit more than once. (Students in Arts and Science may take this course once only.) (Prerequisites: 200 or permission of the Department) NO(3-0)

**\*THEA 411 (1½) SEMINAR IN THEATRE HISTORY: IV**

Intensive study of a specific period or genre. The topics for consideration will change each year. Students may take this course for credit more than once. (Students in Arts and Science may take this course once only.) (Prerequisites: 200 or permission of the Department) NO(3-0)

**\*THEA 414 (1½, formerly 3) STUDIES IN CANADIAN THEATRE AND DRAMA**

The Canadian theatre and drama. (Students should consult the Department for the topic to be considered. This course may be taken for credit more than once in different topics, with the permission of the Department.) (Prerequisite: Theatre 200 or permission of the Department)

This year: Plays and Performers: Past and Present

The course will begin with an exploration of the early developments in Canadian theatre as it reflected the life and times of the Canada in which they took place. This look at the stage in our past will include the colourful touring days, drama on the shelf (Poetic Drama), the Marks Brothers, and glimpses of Ibsen and Shaw. The modern scene will be examined through the plays of Herman Voaden, Robertson Davies, Gwen Pharis Ringwood, Carol Bolt, David French, James Reaney and others. Text: *Major Plays of the Canadian Theatre*, ed. Richard Perkyns. NO(3-0)

\* Approved for elective credit in the Faculty of Arts and Science.

**ACTING****THEA 120 (3) INTRODUCTION TO THE ART OF ACTING**

An orientation to the art of acting and an introduction to the actor's creative process. Y(1½-3)

**THEA 220 (3) ACTING: I**

Work in improvisation, characterization and scene study. (Enrollment limited to 15 students per section) (Prerequisites: 120 and permission of the Department. Corequisites: 250 and 260) Y(0-2½-2)

**THEA 250 (1½) BEGINNING VOICE**

Basic development of the voice to prepare for speech on the stage. (Enrollment limited to 15 students per section) (Prerequisites: 120 and permission of the Department. Corequisites: 220 and 260) Y(0-3)

**THEA 260 (1½) INTRODUCTION TO STAGE MOVEMENT**

Basic development of the body to prepare for movement on the stage. (Enrollment limited to 15 students per section) (Prerequisites: 120 and permission of the Department. Corequisites: 220 and 250) K. Piesowocki Y(0-3)

**THEA 320 (3) ACTING: II**

The study of acting as related to specific theatrical genres, styles or periods. (Prerequisites: 220, 250, 260 and permission of the Department. Corequisites: 350 and 360) Y(0-2½-2)

**THEA 350 (3) SPEECH IN THE THEATRE**

Work in voice and speech as related to specific theatrical genres, styles or periods. (Prerequisites: 220, 250, 260, and permission of the Department. Corequisites: 350 and 360) Y(0-2½-2)

**THEA 360 (3) STAGE MOVEMENT**

Work in movement as related to specific theatrical genres, styles or periods. (Prerequisites: 220, 250, 260, and permission of the Department. Corequisites: 320 and 350) K. Piesowocki Y(0-4½)

**THEA 420 (3) ACTING: III**

Advanced work in special problems in acting. A studio production will be mounted each year. (Prerequisites: 320, 350, 360; audition and/or interview; permission of the Department. Corequisite: 450, 460) Y(0-2½-2)

**THEA 450 (3) SPECIAL STUDIES IN VOICE AND SPEECH FOR THE THEATRE**

Advanced work in voice production and speech for the stage. (Prerequisites: 320, 350, 360; audition and/or interview; permission of the Department. Corequisites: 420, 460) Y(0-2½-2)

**THEA 460 (3) ADVANCED STAGE MOVEMENT**

Advanced work in special problems of stage movement. (Prerequisites: 320, 350, 360; audition and/or interview; permission of the Department. Corequisites: 420, 450) K. Piesowocki Y(0-4½)

**DIRECTING****THEA 330 (3) DIRECTING: I**

Fundamental textual analysis; stage composition, movement and rhythm; methods of rehearsal procedure and basic techniques of working with the actor. (Prerequisites: 120 or 181 and permission of the instructor) H.M. Miller, G.W. Hoga Y(3-2)

**THEA 430 (3) DIRECTING: II**

Advanced work in stage direction with particular emphasis on special problems of style. (Prerequisites: 330 and permission of the Department) H.M. Miller Y(2-4)

**DESIGN AND TECHNICAL PRACTICE****THEA 240 (3) GRAPHIC TECHNIQUES FOR THEATRE DESIGNERS**

A course designed to develop rendering and delineation skills in both freehand and mechanical idioms useful to the designer for the communication of appropriate information in an appropriate form for design development of working drawings. (Prerequisite: Permission of the Department) W.E. Heslop Y(1-4)

**THEA 241 (3) INTRODUCTION TO COSTUME DESIGN**

A study of the principles, techniques and materials of costume design for the stage and other media. Assignments will include costume designs for Department projects. (Prerequisite: 105) I.M. Pieper Y(2-2)

**THEA 340 (3) SCENERY FOR THE THEATRE**

Fundamentals of three dimensional design and spatial perception in the theatre. Graphic techniques for planning, analyzing and describing plastic space for the stage. Practical problems in the design of stage settings. (Prerequisites: 105 and 240 and permission of the Department) Y(2-2)

**THEA 341 (3) COSTUME HISTORY AND DESIGN**

The history of costume and fashion in society and the theatre from ancient times to the present. Analysis and selected designs for a play set in each of approximately twelve periods of costume style. I.M. Pieper Y(4-0)

**THEA 342 (3) LIGHTING FOR THE THEATRE**

Lighting design; its theory and practice. (Prerequisites: 105 and permission of the Department) G.W. Hoga Y(2-2)

**THEA 343 (1½ or 3) TELEVISION AND THEATRE**

A theoretical and practical study of television with special consideration of the differences between television and stage performance. Students will study videotapes and experiment with videotaped performance. (Prerequisites: 6 units of Theatre and permission of the Department) NO(2-2)

**THEA 372 (1½) THEATRICAL MAKEUP**

The history, theory, design and application of theatrical makeup. (Students must purchase the assigned makeup kit.) (Prerequisites: Theatre major, 2nd year or above; Music Voice major, 3rd year or above; or permission of the Department) I.M. Pieper Y(1½-0)

**THEA 441 (1½) SPECIAL PROBLEMS IN COSTUME DESIGN**

Advanced work in a specific costume design area, such as pattern drafting, dying or accessories. The topics for consideration will change each term. (Students may take this course for credit more than once in different topics.) (Prerequisites: 241, 341) I.M. Pieper FS(3-0)

**THEA 444 (1½ or 3) COSTUME DESIGN FOR PRODUCTION**

Supervised design and production in the execution of costumes for theatre production. Students will work with directors on design concepts, carry out research and write reports on their findings; they will then prepare designs and see them through the construction process into production. (May be taken for credit more than once, up to a limit of six units) (*Prerequisites*: 241 and permission of the Department. *Pre-or corequisites*: 341, 441)

I.M. Pieper

FS(0-3)

**PRODUCTION AND MANAGEMENT****THEA 105 (3) AN INTRODUCTION TO STAGECRAFT AND TECHNICAL PRACTICE**

Elementary principles of scenery and costume construction, and of stage lighting. Students will be required to participate as production crew in Department productions. (*Prerequisite*: Permission of the Department)

N.B. Kinghorn, G.A. Timmermans

Y(1-4)

**THEA 205 (3) AN INTRODUCTION TO PRODUCTION AND MANAGEMENT AREAS OF THE THEATRE**

Students are instructed in the basic principles and procedures of the major production and management areas of the theatre. Intensive applications in one or more areas are studied. Students will be required to participate as production crew in Department or other designated productions. (Students enrolled in this course must consult the instructor before making evening or lunchtime engagement which might interfere with the schedule of practical assignments.) (*Prerequisites*: 105 and permission of the Department)

N.B. Kinghorn, G.A. Timmermans

Y(1-4)

**THEA 305 (1½ or 3) ADVANCED PRODUCTION AND MANAGEMENT**

Students are instructed and given practical experience in one or more of the major production and management areas of the theatre. These may include: costume, stage management, technical direction, sound design, lighting operation, stage carpentry, front of house, publicity. (Enrollment limited) (*Prerequisites*: 205 and permission of the Department)

N.B. Kinghorn, G.A. Timmermans

Y(0-6-2)

**THEA 405 (1½ or 3) SPECIALIZED STUDIES IN PRODUCTION AND MANAGEMENT**

Supervised practical experience in one or two specialized areas of production and management in the theatre. (Enrollment limited) (Students may take this course for credit more than once in different topics.) (*Prerequisites*: 305 and permission of the Department)

N.B. Kinghorn, G.A. Timmermans

Y(0-6-2)

**THEATRE IN EDUCATION****THEA 181 (3) AN INTRODUCTION TO THE DRAMATIC PROCESS**

A course designed for students considering a career in which presentation of self and personal communication are necessary components. Development of personal confidence, creative and communication skills through dramatic exploration of games, verbal and nonverbal signalling, role playing and improvisation. Study of texts will be required. (Enrollment limited to 25 students per section)

J.M. Saxton

Y(1-4)

**THEA 381 (3) DRAMA IN EDUCATION (Grades K-VII)**

A course designed for teachers who wish to use Drama as a method of instruction in the elementary school. A study of a dramatic approach to the teaching of language arts, mathematics and social studies; and an exploration of movement, sound, art and music. Examination of methodology, teaching strategies and unit designs. (*Prerequisites*: 181 and permission of the Department. *Pre-and corequisites*: 330, ED-B 331, ED-D 305 or permission of the Department)

Y(2-2)

**THEA 382 (3) DRAMATIC ARTS IN THE SECONDARY SCHOOL (Grades VIII-XII)**

A course designed for those teachers who wish to teach Drama as a subject, or to use Drama as a teaching method. This course is intended to bridge the gap between dramatic exploration and dramatic presentation. Game theory, improvisation, role playing, Readers' Theatre, Story Theatre, Anthology and Docudrama. An examination of methods, teaching strategies, and curriculum design with emphasis upon theory, objectives, and extracurricular Drama. (*Prerequisite*: 181) (*Pre-and corequisites*: 330, ED-B 471, ED-P 398, ED-D 406 or permission of the Department)

NO (2-2)

**THEA 383 (3) THEATRE FOR YOUNG AUDIENCES**

The history and philosophy, production and performance of theatre for young audiences. This course is designed for teachers who see theatre as a stimulus for classroom learning, and for performance students who wish to acquire skills required for work with classroom audiences. Studio work is required. (*Prerequisites*: 330 and permission of the Department)

NO(2-2)

**DIRECTED STUDIES**

NOTE: Directed Studies may, with the permission of the Department, be taken for credit more than once.

Students wishing to pursue a course of directed studies must, with a faculty member who is willing to supervise such a course, formulate a proposal accurately describing course content, the intended method and extent of supervision, and the method by which work will be evaluated. The proposal must then receive the approval of the Chairman of the Department.

Proposals will normally be subject to the following limitations: the student must have maintained a good G.P.A. and an average of at least B+ in courses directly related to the proposed directed studies; no more than 9 units of directed studies credit will count for credit towards the B.F.A.; no more than 6 units of directed studies will be approved in any single winter session.

**THEA 299 (1½ or 3) THEATRE LABORATORY**

Under the supervision of faculty, students will participate in projects that will include both their particular areas of interest and other aspects of the theatre.

Y(2-2)

**\*\*THEA 390 (1½ or 3) DIRECTED STUDIES IN THEATRE HISTORY**

(*Prerequisite*: 200 and/or permission of the Department)

**\*\*THEA 391 (1½ or 3) DIRECTED STUDIES IN THE HISTORY OF DRAMA**

(*Prerequisite*: 200 and/or permission of the Department)

**\*\*THEA 392 (1½ or 3) DIRECTED STUDIES IN THEORIES OF ACTING****\*\*THEA 393 (1½ or 3) DIRECTED STUDIES IN THEORIES OF DIRECTING**

(*Prerequisite*: 200 and 330 and/or permission of the Department)

**\*\*THEA 394 (1½ or 3) DIRECTED STUDIES IN THEATRE/DRAMA IN EDUCATION**

Individual, supervised research in theatre/drama in education culminating in the production of a specific project either written or practical.

**THEA 395 (1½ or 3) DIRECTED STUDIES IN PRODUCTION AND/OR MANAGEMENT****THEA 396 (1½ or 3) DIRECTED STUDIES IN SCENE DESIGN**

(*Prerequisites*: 240, 340 and permission of the Department)

**THEA 397 (1½ or 3) DIRECTED STUDIES IN COSTUME DESIGN**

(*Prerequisites*: 341, 441 and permission of the Department)

**THEA 398 (1½ or 3) DIRECTED STUDIES IN LIGHTING DESIGN**

(*Prerequisites*: 342 and permission of the Department)

**THEA 399 (1½ or 3) THEATRE LABORATORY**

Under the supervision of faculty, students will participate in projects that will include both their particular areas of interest and other aspects of the theatre. Supervised performance in department productions will normally be available for credit only to students in the acting specialization.

(2-2)

**THEA 490 (1½ or 3) GRADUATING PROJECT**

Students in their final year may take a special project under this number according to their areas of interest and with the permission of the Department.

**THEA 499 (1½-6) THEATRE LABORATORY**

Under the supervision of faculty, students will participate in projects that will include both their particular areas of interest and other aspects of the theatre. Supervised performance in department productions will normally be available for credit only to students in the acting specialization.

(2-2)

\*\* Students in Arts and Science may take for elective credit only one of the five directed studies courses.

## GRADUATE COURSES

NOTE: The content of courses numbered 500-590 may vary in different academic sessions. These courses may then be taken for credit more than once at the discretion of the Department. Not all the following courses will be offered in a particular year. Students should consult the Department to determine the courses which will be offered this year.

**THEA 500 (1½ or 3) METHODS AND MATERIALS OF THEATRE RESEARCH**

**THEA 501 (1½ or 3) SEMINAR IN HISTORY AND CRITICISM OF TRAGEDY**

**THEA 502 (1½ or 3) SEMINAR IN HISTORY AND CRITICISM OF COMEDY**

**THEA 503 (1½ or 3) SEMINAR IN EUROPEAN THEATRE HISTORY**

**THEA 504 (1½ or 3) SEMINAR IN NORTH AMERICAN THEATRE HISTORY**

**THEA 505 (1½ or 3) SEMINAR IN THEATRICAL STYLES**

**THEA 506 (1½ or 3) SEMINAR IN DRAMA IN EDUCATION**

**THEA 507 (1½ or 3) SEMINAR IN THEATRE IN EDUCATION**

**THEA 508 (1½ or 3) SCENE DESIGN**

**THEA 509 (1½ or 3) LIGHTING DESIGN**

**THEA 510 (1½ or 3) COSTUME DESIGN**

**THEA 511 (1½ or 3) PRODUCTION**

**THEA 512 (1½ or 3) DIRECTING**

**THEA 513 (1½ or 3) SEMINAR IN THEATRE AESTHETICS**

**THEA 514 (1½ or 3) SEMINAR IN DESIGN**

**THEA 515 (1½ or 3) SEMINAR IN DIRECTING**

**THEA 516 (1½ or 3) SEMINAR IN THEATRE HISTORY**

**THEA 520 (3) ADVANCED PROBLEMS IN SCENE DESIGN**

**THEA 521 (3) ADVANCED PROBLEMS IN LIGHTING DESIGN**

**THEA 522 (3) ADVANCED PROBLEMS IN COSTUME DESIGN**

**THEA 523 (3) ADVANCED PROBLEMS IN DIRECTING**

**THEA 590 (3) DIRECTED STUDIES**

**THEA 598 (Credit to be determined) M.F.A. PRACTICUM** (Grading: INP, COM, N or F)

**THEA 599 (Credit to be determined) M.A. THESIS** (Grading: INP, COM, N or F)

## DEPARTMENT OF VISUAL ARTS

Donald Harvey, A.T.D. (Brighton), R.C.A., Professor (Drawing and Painting) and Chairman of the Department

Mowry Baden, B.A. (Pomona), M.A. (Stanford), Professor (Sculpture)

Pat Martin Bates, Dip. Royale (Académie Royale des Beaux Arts, Antwerp), R.C.A., Professor (Printmaking)

Roland Brener, Post Dip. A.D. (St. Martin's School of Art, London), Professor (Sculpture)

Douglas G. Morton, R.C.A., Professor (Painting)

George W. Tiessen, B.F.A. (Mt. Allison), M.F.A. (Cornell), Associate Professor (Printmaking and Painting)

Gwen Curry, B.F.A., (U. of Vic.), M.F.A., (Arizona St.), Assistant Professor (Printmaking and Drawing)

Fred Douglas, Assistant Professor (Photography)

Lynda Gammon, B.A. (S. Fraser), M.F.A. (York), Assistant Professor

Patrick George, B.F.A. (U. of Vic.), Senior Academic Assistant

### GRADUATE PROGRAM

For information on studies leading to the M.F.A. Degree, see page 235; for graduate courses, see page 210.

### GENERAL INFORMATION

The Department offers two undergraduate programs leading to the degree of B.F.A., Honours or Major, and a two year graduate program leading to an M.F.A.

The academic emphasis of the Department is on a fine art curriculum, rather than applied or craft training. The program is designed to provide intensive studio experience in a critical setting pertinent to the pursuit of art in our culture. Studies are enriched by visiting artists and critics and the presence of graduate students from Canada and abroad. In addition to the regular program, the Department offers several courses each summer which are staffed by notable visiting artists.

### ADVICE FOR STUDENTS ENTERING THE DEPARTMENT FOR THE FIRST TIME

#### 1. From secondary school

Complete the usual procedures for admission to the University, as specified elsewhere in this Calendar.

Students intending to pursue a degree program in Visual Arts should declare that intention by registering in the faculty of Fine Arts.

#### 2. Transfer from other universities, colleges, and art schools

Complete the usual procedures for admission to the University, as specified elsewhere in this Calendar. The Director of Admission Services will consult the Department for advice on transfer credit for studio courses completed elsewhere.

#### 3. From other programs at the University of Victoria

Complete the usual procedures for reregistration, as specified elsewhere in this Calendar.

### UNDERGRADUATE PROGRAMS

Students who are working towards the B.F.A. degree have the choice of an Honours or a Major program. This permits a choice between an intensive commitment to visual arts (normally 36 visual arts course units from a degree total of 60); or a combination of visual arts and other University offerings (as few as 28½ visual arts course units from a degree total of 60).

#### HONOURS PROGRAM

Students must normally complete 36 units of Department offerings as specified below. Of the total of 60 units, at least 21 units must be chosen from outside the Department of Visual Arts, including 6 units of History in Art. Students must maintain a B+ average in three visual arts courses at the 300 level, and have the permission of the Department, to enter Art 499.

<i>First and Second Years</i>		<i>Third and Fourth Years</i>	
100*	1½	300-390	9
150	1½	499****	12
History in Art**	3	Outside electives	9
Outside electives***	9		
Art or Outside elective	3		
4 of 101, 110, 120, 130 or 140	6		
4 of 200-240	6		

A student who passes all courses but fails to obtain a second class graduating average (3.50) will graduate in the Major Program.

#### MAJOR PROGRAM

Students must normally complete 28½ units of Department offerings as specified below. At least 24 units must be chosen from outside the Department of Visual Arts, including 6 units of History in Art. Of the total 60 units, at least 21 must be chosen from courses numbered 300 or above.

<i>First and Second Years</i>		<i>Third and Fourth Years</i>	
100*	1½	300-490	15
150	1½	Outside electives	9
History in Art**	3	Art or outside electives	6
Outside electives***	12		
Art or outside elective	1½		
4 of 101, 110, 120, 130 or 140	6		
3 of 200, 210, 220, 231, 232, 233 or 240	4½		

\* 100 is a prerequisite or corequisite to all 100 and 200 level Art courses except 150.

\*\* The required 6 units of History in Art may be elected at any time during the four years. However, students are strongly advised to complete 3 of those 6 units in their first or second year.

\*\*\* A general University of Victoria regulation requires all students either to pass the qualifying examination in English or to complete certain English courses (see page 12).

\*\*\*\* Neither Art 390 nor Art 490 may be taken simultaneously with Art 499.

## COURSES

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### ART 100 (1½ formerly 3) STUDIO FOUNDATION

A course focusing on the processes and ideas associated with the creation of art. In a studio setting students will be encouraged to explore a series of related ideas, questions and problems using verbal and experimental methods. (Priority is given to students registered in the B.F.A. program in Visual Arts.) FS(0-3)

### ART 101 (formerly half of 200) (1½) DRAWING

This course is intended to increase drawing skills and to introduce drawing as a means of dealing with visual concepts and problems. (Pre- or corequisite: 100) FS(0-3)

### ART 110 (formerly half of 210) (1½) PAINTING

A studio introduction to painting and related areas. (Pre- or corequisite: 100) FS(0-3)

### ART 120 (formerly half of 220) (1½) SCULPTURE

An introduction to concerns and methods in contemporary sculpture. Students will experience a broad range of studio practices as well as explore theoretical issues. Short projects and critiques are the standard format for this class. (Pre- or corequisite: 100) FS(0-3)

### ART 130 (1½) PRINTMAKING

An introductory course involving basic relief printmaking techniques which may include the collograph, woodcut, linocut and drypoint. (Pre- or corequisite: 100) FS(0-3)

### ART 140 (formerly half of 240) (1½) PHOTOGRAPHY

This course concerns the distinctive quality of the photograph. Basic darkroom procedures and camera techniques are dealt with in this context. (Students must supply their own camera.) (Pre- or corequisite: 100) FS(0-3)

### \* ART 150 (1½) BASIC ART THEORY

A lecture course introducing the terms and concepts necessary for an understanding of contemporary art. (Priority is given to students registered in the B.F.A. program in Visual Arts.) S(3-0)

### ART 200 (1½ formerly 3) DRAWING

This course is intended to increase drawing skills and to introduce drawing as a means of dealing with visual concepts and ideas. (Prerequisites: 100 and 101) S(0-3)

### ART 210 (1½ formerly 3) PAINTING

An extension of 110. (Prerequisites: 100 and 110) S(0-3)

### ART 220 (1½ formerly 3) SCULPTURE

A continuation of 120. Students will develop an ability to work independently in the sculpture area by the completion of this course. (Prerequisites: 100 and 120) S(0-3)

### ART 231 (1½) (formerly half of 331) SCREENPRINTING (Silkscreen)

An introduction to screen printing; exploration of all stencil methods, including photo screen, with the aim of producing original prints. (Prerequisites: 100 and 130) (N.B. May be taken concurrently with 232 or 233 but not both) S(0-3)

### ART 232 (1½ formerly 3) INTAGLIO

An introductory studio course in the history and techniques of various intaglio processes including etching, engraving, aquatint, mezzotint, dry point and metal collage. (Prerequisites: 100 and 130) (N.B. May be taken concurrently with 231 or 233 but not both) S(3-0)

### ART 233 (1½ formerly 3) LITHOGRAPHY

An introduction to stone and metal plate lithography. (Prerequisites: 100 and 130) (N.B. May be taken concurrently with 231 or 232 but not both) S(0-3)

### ART 240 (1½ formerly 3) PHOTOGRAPHY

A continuation of 140, including both practical and theoretical aspects of photography. (Students must supply their own camera.) (Prerequisites: 100 and 140) S(0-3)

Normally before admission to any 300 level art course, Visual Arts students must have completed a minimum of 9 units of outside electives and their program requirements of 100 and 200 level art courses.

### ART 300 (3) ADVANCED DRAWING: I

### ART 301 (3) ADVANCED DRAWING: II

These courses are intended to increase further the students comprehension of mark making and its meaning. The emphasis will be on the development of a personal statement and the exploration of drawing as an art form in its own right. (Prerequisites: 100 and 200) Y(0-3)

### ART 310 (HA 310) (1½ or 3) MEDIA AND METHODS

An examination of the techniques employed by artists throughout history. Areas of special emphasis may include architecture, drawing, painting, photography, printmaking, sculpture, and the various media used in the decorative arts, in Western and non-Western cultures. Historical, geographical, social and economic factors in the development of art technology are considered, together with the interrelation of ideas with material and techniques. Each course will consist of a series of lectures, demonstrations, museum and gallery visits as appropriate. Period and area of emphasis at the discretion of the instructor. (As the emphasis may vary from time to time, the course may be taken for credit more than once, with permission of the Department.) (Prerequisite: HA 120 or permission of the Department) NO(3-0)

### ART 311 (3) PAINTING: I

### ART 312 (3) PAINTING: II

### ART 313 (3) PAINTING: III

Advanced courses in painting. (It is not necessary that these courses be taken in sequence. Concurrent registration in two of these courses is permitted.) (Prerequisites: 110 and 210) Y(0-3)

### ART 321 (3) SCULPTURE: I

Y(0-3)

### ART 322 (3) SCULPTURE: II

Y(0-3)

### ART 323 (3) SCULPTURE: III

NO

Advanced courses in sculpture. (It is not necessary that these courses be taken in sequence. Concurrent registration in two of these courses is permitted.) (Prerequisites: 120 and 220)

### ART 332 (3) ADVANCED INTAGLIO

An advanced studio course in the various intaglio methods including photo etching and mixed media, encouraging the student to develop visual acuity and concepts. (Prerequisites: 130 and 232) Y(0-3)

### ART 333 (3) ADVANCED LITHOGRAPHY

An advanced studio course which will focus on colour and plate lithography and place more emphasis on the student's personal imagery. (Prerequisites: 130 and 233) Y(0-3)

### ART 341 (3) PHOTOGRAPHY: I

Y(0-3)

### ART 342 (3) PHOTOGRAPHY: II

NO(0-3)

An extension of 240. More advanced techniques and an emphasis on developing individual concerns. (Students in these classes must have their own camera.) (It is not necessary that these courses be taken in sequence. Concurrent registration in both is permitted.) (Prerequisites: 140 and 240)

### \* ART 350 (3) CONTEMPORARY ART THEORY AND PRACTICE

This course does not deal with the history of contemporary art. It aims rather at introducing the student to the contexts — social, political, economic, intellectual — in which the artist operates today. Among concepts explored are: the artist and the state, society and the artist, the economics of art, art and politics, art and philosophy, art and psychology, art and psychoanalysis, artist and critic, the education of the artist, fashions in theory (Freud, Jung, Marx, Kierkegaard, Zen, Sartre, Wittgenstein, Structuralism, etc.) (Prerequisite: 150 or permission of the Department) Y(0-3)

**ART 390 (3) DIRECTED STUDIES**

(Prerequisite: 6 units of credit in the specialized area of study or permission of the Department)

**ART 490 (3) DIRECTED STUDIES**

(Prerequisite: 6 units of credit in the specialized area of study. Normally for Major students only.)

**ART 499 (12) SENIOR PROJECT**

The senior project is the major component in the B.F.A. Honours Degree Program. Each student taking 499 works under the supervision of a faculty member. In addition to this regular contact there are two formal critiques of each student's work per semester at which three faculty members must be present. The year culminates in the 499 Graduating Exhibition which is held in April of each year and is the final accomplishment of students in the Honours Program. The senior project presents an opportunity to students who have a firm commitment to their chosen area of study and the ability to work independently under supervision. Available subjects are: Painting, Drawing, Sculpture, Printmaking and Photography. Students must have attained a B+ average in three third year visual arts courses as well as permission of the department.

\* Approved for elective credit in the Faculty of Arts and Science.

**GRADUATE COURSES**

Not all the following courses will be offered in a particular year. Students should consult the Department to determine the courses which will be offered this year.

**ART 511 (9) FIRST YEAR PAINTING****ART 512 (9) SECOND YEAR PAINTING**

Over the two year period normally required for completion of the M.F.A., students are expected to complete a large body of work which reflects their personal imagery or concerns.

**ART 521 (9) FIRST YEAR SCULPTURE****ART 522 (9) SECOND YEAR SCULPTURE**

Graduate students will have access to all sculpture workshop and equipment facilities. Students will be encouraged to develop an individualistic and investigative approach to material and concepts in sculpture.

**ART 531 (9) FIRST YEAR PRINTMAKING****ART 532 (9) SECOND YEAR PRINTMAKING**

Students wishing to pursue printmaking as the major area of study will be able to choose from Intaglio Printing, Screen Printing, Relief Printing and Lithography. With departmental approval, students may work in more than one of the above printmaking fields. Students will be expected to demonstrate a high degree of professional skills and artistic integrity in printmaking at the graduate level. They will be expected to be self motivated and have the ability to work and do research in printmaking with a minimum of supervision.

**ART 541 (9) FIRST YEAR PHOTOGRAPHY****ART 542 (9) SECOND YEAR PHOTOGRAPHY**

The emphasis in this area is on the photograph as a self critical form of fiction. Students will have access to the department's photography facilities which are mainly in black and white processing. (Note: Students must supply their own camera.)

**ART 580 (6) FIRST YEAR SEMINAR****ART 581 (6) SECOND YEAR SEMINAR**

A comprehensive written statement developed over both years, dealing with problems arising from the individual student's studio work. This statement, the content of which is chosen in consultation with the student's advisor, will explicate the nature of the student's art and place it in an historical context with previous and similar cultural models. At the end of their first year students should have explored their subject to the point where an outline is in place. The statement will be circulated in its final form to members of the examining committee two weeks before the student's degree exhibition, and it will form a part of the oral examination.

**ART 598 (credit to be determined) M.F.A. DEGREE EXHIBITION**

This final exhibition will be the major source of evaluation for the student's attainment of the M.F.A. and should be regarded as the equivalent of the scholarly thesis of an academic discipline. The degree exhibition will be evaluated by the student's committee which will submit its decision to the Department for approval. Graduating students should be available to speak to their work and answer questions when their work is being evaluated by the examining committee.

(Grading: INP, COM, N or F)

# FACULTY OF GRADUATE STUDIES

Alexander McAuley, B.Sc., Ph.D., D.Sc. (Glasgow), C.Chem., A.R.I.C.,  
Dean of the Faculty  
Bruce L. Howe, B.S., M.S., Ph.D. (Oregon), Associate Dean  
Robert W. Stewart, Ph.D. (Cantab.), Interim Director, Centre for Earth  
and Ocean Research

## EXECUTIVE COMMITTEE:

### Members:

Alexander McAuley, B.Sc., Ph.D., D.Sc., Dean of the Faculty of  
Graduate Studies, Chairman  
Bruce L. Howe, B.S., M.S., Ph.D., Associate Dean of the Faculty of  
Graduate Studies

### Representing the Humanities

Jennifer R. Waelti-Walters, B.A., L.èsL., Ph.D., Department of French  
Language and Literature. Term expires October 1988

### Representing Education

Arthur V. Olson, B.S., M.S., Ed.D., Department of Communication and  
Social Foundations. Term expires October 1988

### Representing Engineering

Vijay K. Bhargava, B.Sc., M.Sc., Ph.D., Department of Electrical Engi-  
neering. Term expires October 1988

### Representing Fine Arts

Gordana Lazarevich, Artist and Licentiate Dip., B.Sc., M.Sc., Ph.D.  
School of Music. Term expires October 1989

### Representing Human and Social Development

Thomas A. Lambe, B.A.Sc., M.S., Ph.D., School of Public Administra-  
tion. Term expires October 1988

### Representing the Sciences

Colin D. Scarfe, B.Sc., Ph.D., Department of Physics. Term expires Oc-  
tober 1989

### Representing the Social Sciences

Norman J. Ruff, B.Sc. (Econ.), M.A., Ph.D., Department of Political  
Science. Term expires October 1989

## REGULATIONS

The regulations shown below have been approved by the Senate of the University of Victoria. Students registered in the Faculty of Graduate Studies are subject to such other general regulations of the University as the Senate or Board of Governors, on the recommendation of the Faculty of Graduate studies, may wish to apply.

### APPROVED GRADUATE PROGRAMS

The Faculty of Graduate Studies of the University of Victoria administers programs leading to the degree of:

Master of Applied Science	Master of Music
Master of Arts	Master of Public Administration
Master of Education	Master of Science
Master of Engineering	Doctor of Philosophy
Master of Fine Arts	

Details of established programs leading to Master's or Doctoral degrees are provided within the departmental listings. Degrees may also be taken with a cooperative education option, with an interdisciplinary focus, or by "special arrangement", as outlined below.

#### Cooperative Education Option

The Faculty of Graduate Studies participates in Cooperative Education at the University of Victoria which integrates periods of full time employment with the academic program. For information on these programs, please contact the Cooperative Education Coordinator or the graduate adviser in the department concerned.

Students in these programs shall register, for each employment period, in a series of designated courses numbered at the 800 level. Normally a student in such a registered course shall be allowed to carry only 1½ units of coursework or project/thesis/dissertation per term in addition to the work term registration.

Upon successful completion of a graduate program which includes a minimum of 8 months of 800 level courses (Master's) or 12 months of 800 level courses (Ph.D.), a coop notation will be placed on the student's official transcript, and an official "Record of Work Terms" appended.

#### Interdisciplinary Programs

Interdisciplinary programs can only be offered in a combination of

departments that have established graduate degree programs. Applicants who wish to obtain a Master's or Doctoral degree in an interdisciplinary program must submit to the Dean of Graduate Studies a proposal which has been jointly developed by the student and the projected supervisor (whose department would be responsible for the student and program), and which has been approved by the graduate adviser of the "home" department.

The proposal must include the names of the projected supervisor and the proposed supervisory committee, as well as a detailed program outline. It is expected that the members of the supervisory committee who represent the major areas within the interdisciplinary program will act as cosupervisors for the degree. Program composition may be negotiated by the members of the supervisory committee, subject to final approval of the Dean of Graduate Studies; however, unless otherwise specified, interdisciplinary degrees shall conform to the regulations governing academic standards under 5.0 (except 5.5 which specifies the composition of the supervisory committee for regular degree programs).

Applicants for interdisciplinary programs must follow the admission procedures and meet the entrance criteria as described under 1.0 and 1.3 or 1.5; however, the grade point average obtained must be 6.00 (B+) on the last 30 units of coursework attempted.

#### Graduate Programs by Special Arrangement

Applicants who wish to obtain a Master's or Doctoral degree in a department in which such a program is not offered may submit a proposal to the Dean of Graduate Studies for a program by "special arrangement". This proposal must be jointly developed by the student and the projected supervisor (whose department would be responsible for the student and program), and be approved by that department's graduate adviser or chairman.

The completed proposal must include the names of the projected supervisor and proposed supervisory committee, as well as a detailed program outline. Both the composition of the committee and the program must satisfy Faculty regulations under 5.0 (with the exception of 5.5, which specifies the requirements for the supervisory committee for regular graduate programs), as well as the additional requirements listed below.

Approval for the special arrangement program will normally only be given if:

Master's — the department has a major or honours program in the discipline of the proposed Master's program, and has graduated students from the Bachelor's program for at least three years. The supervisory committee shall include at least two members who are from departments with graduate programs, and who have been supervisors of successful candidates for graduate degrees;

Ph.D. — the department has a Master's program in the disciplinary area of the proposed Doctoral program, and has graduated students from the Master's program for at least three years. At least one of the outside members of the supervisory committee shall be from a department which has an active Doctoral program, and both outside members shall have had successful Ph.D. supervisory experience.

Applicants under this category should note that a quota is applied to the number of special arrangement degrees permitted.

The following graduate course numbers may be used by any department offering a program by special arrangement:

DEPT 580*(1-9)	Directed Studies
+DEPT 597(0)	Comprehensive Examination
+DEPT 598(3)	Report Requirement
+DEPT 599(6-15)	Thesis
DEPT 680*(1-15)	Directed Studies
+DEPT 699(30-45)	Dissertation

\*may be taken more than once for credit provided course content differs +grading: INP, COM, N, F

Applicants for special arrangement programs must follow the admission procedures and meet the entrance criteria as described under 1.0 and 1.3 or 1.5; however, the grade point average obtained must be 6.00 (B+) on the last 30 units of coursework attempted.

It is strongly recommended that the Supervisory Committee meet with the student at least twice a year during the life of the program, in order to monitor progress.

#### 1.0 ADMISSION

The requirements for admission to the Faculty of Graduate Studies include an academic standing acceptable to the Faculty of Graduate Studies and the department concerned; satisfactory assessment reports; the availability within the department concerned of a supervisor and of

adequate space and facilities. Students may enter the Faculty in September, January, May or July; however, some programs have restricted entry points. Departmental entries should be consulted for details.

Applications for admission must be submitted as early as possible on forms obtained from the Graduate Admissions & Records Office, Main Floor, University Centre. No assurance can be given that applications received after May 31 can be processed in time to permit registration in the winter session. Applicants who have attended other postsecondary institutions must arrange with those institutions to forward two official transcripts directly to the Graduate Admissions & Records Office. Submission of University of Victoria transcripts is not required; they will be provided by the Graduate Records Office. Also, most applicants must arrange to have two assessment reports sent to the same office on forms supplied with the application; these reports are verified on a routine basis.

Applicants for University of Victoria Graduate Fellowships must have submitted a completed admissions application by February 15 in order to be guaranteed consideration.

Students who have been admitted to the Faculty of Graduate Studies should confirm within one month that they intend to accept the offered place. If this is not done, then the admission may be cancelled and the place reassigned.

Foreign students should not make travel plans until they have been granted official admission (not provisional admission) and have satisfied all student visa requirements through the Canadian Consulate in their home country. Allow at least eight weeks for visa application procedures.

### 1.1 Test of English as a Foreign Language

Applicants for admission whose first language is not English, and who have resided in Canada or other English speaking countries for less than three years prior to the beginning of the session applied for, must take the Test of English as a Foreign Language (TOEFL) and have scores forwarded directly to the Faculty of Graduate Studies by the testing centre not less than eight weeks prior to the projected entry date. A score of not less than 550 on the TOEFL is required for admission to the Faculty. Applicants must designate the University of Victoria Faculty of Graduate Studies as the receiving institution for the test results. Student copies are not acceptable.

Applicants whose first language is not English but who have resided in Canada or other English speaking countries for more than three years are not required to take the Test of English as a Foreign Language.

Information concerning the Test of English as a Foreign Language, and the times and places at which it is administered, may be obtained by writing to "Educational Testing Service, Princeton, N.J. 08540, U.S.A." Applications are also available from the University's Counselling Services.

### 1.2 GRE Requirement for Graduate Studies

The Graduate Record Examination (GRE) is prepared and scored by the GRE Board and Educational Testing Service, Princeton, New Jersey. Applications are available from "Graduate Record Examinations, Box 955, Princeton, N.J. 08541" or from "Counselling Services, University of Victoria". It is used widely by Universities to supplement undergraduate records and other qualifications for admission to graduate study.

GRE requirements are prescribed by individual departments. In some instances, completion of the examination is mandatory. Applicants are advised to check department listings for detailed information. However, the Faculty reserves the right to require a GRE score (on Advanced and Aptitude Tests), for any applicant. Voluntary submission of a GRE score may facilitate the admission process.

### 1.3 Admission to Master's Degrees

1.3.1 In general, an acceptable academic standing will be a four year (60 academic University of Victoria units) baccalaureate degree (or equivalent) from a recognized institution. A minimum of 21 units of course work at the third or fourth year level is required. A grade point average of at least 5.00 (B) in the work of the last two years (30 units) leading to this baccalaureate degree is required for entry. Higher entrance standards than those outlined in this section may be set by individual departments.

"Practicum", "curriculum and instruction", and "activity" courses cannot be used to satisfy the 60 academic unit or 21 senior level unit requirement described above, and grades on such courses will not be used in the calculation of the entering grade point average. Any courses used in the calculation of the entering average cannot be used as credit toward a graduate degree program.

1.3.2 Evidence is required, in the form of two assessment reports, submitted directly to Graduate Admissions from qualified referees, of the student's ability to undertake advanced work in the area of interest.

### 1.4 Admission to the Master's degree as a Conditionally Admitted Mature Student

Five years after completion of a baccalaureate degree as defined in 1.3.1, applicants whose academic record is such that they would not be admissible to a Master's program may be admitted conditionally as mature students, provided they are recommended by the department and have five years of relevant professional experience. Such recommendations must be approved by the Faculty of Graduate Studies Admissions Committee.

A minimum of 9 units of senior undergraduate or graduate course work with no less than a cumulative grade point average of 5.00 (B) and a grade of at least B- in each course is required before reregistration in a Master's program can be approved by the Faculty. When the student has satisfied this condition and has been authorized for the Master's program, courses taken as part of this nine units can be applied toward the graduate degree when the Master's program form is submitted to the Faculty.

### 1.5 Admission to the Doctoral Degree

1.5.1 requires a Master's degree from a recognized institution (or equivalent), or a baccalaureate degree as defined in 1.3.1 from a recognized institution with a cumulative grade point average of 6.50 (A-), or the completion of at least two terms in a Master's program at this University. Transfer may be recommended after an evaluation of the candidate by the department concerned. Departmental entries should be consulted for details on the establishment of transfer eligibility. Normally, no departmental requests for such transfers will be considered after 16 consecutive months from the start date of the Master's program.

1.5.2 requires submitted evidence that the applicant is capable of undertaking substantial original research. Such capability will be judged from two assessment reports sent directly to Graduate Admissions from qualified referees, and the completion of a Master's thesis or other scholarly work. Students who are recommended for transfer to the Doctoral program are exempted from this requirement.

All Doctoral students are admitted as provisional candidates until they have passed their candidacy examinations, at which time they are automatically classified as candidates for the degree of Doctor of Philosophy. See item 5.6

### 1.6 Admission to Nondegree Course Work

"Nondegree" graduate students are taking courses in the Faculty of Graduate Studies, but not for credit toward a degree at the University of Victoria. Such students are admitted under three categories:

1.6.1 "visiting" graduate students on a Letter of Permission which specifies courses allowed for credit toward a graduate degree at another university. Applicants under this category should complete an application for admission and provide a Letter of Permission from their home institution. No other supporting documentation is required.

1.6.2 "exchange" graduate students on a Letter of Permission issued by the Dean of Graduate Studies of a western Canadian university under the provisions of the Western Deans' Agreement. If a student is admitted as an "exchange" student, all tuition fees will be waived; however, student fees will still be charged. Applicants under this category should submit a completed application for admission and documentation from the Dean of Graduate Studies at their home institution certifying the applicant as an "exchange" student under the provisions of the Agreement. Courses to be taken toward their degree should be specified in the documentation. No other supporting material is required.

1.6.3 "nondegree" students who wish to improve their academic background. Applicants under this category who do not hold a Master's degree should meet the same entrance requirements and follow the same application procedure as outlined in 1.0 and 1.3. Holders of a Master's degree (or equivalent from a recognized institution) in the same discipline as the course work applied for should complete an application for admission, and provide proof of conferral of the Master's degree.

If a student admitted as a nondegree student is later admitted to a graduate degree program, the course work taken as a nondegree student may be applied to the graduate program subject to the recommendation of the supervisory committee and the approval of the Dean of Graduate Studies. However, none of the fees paid as a nondegree student may be applied to the graduate degree.

### 1.7 Admission to a Second Master's or Doctoral Degree

Under the following conditions, a student who has a Master's or Doctoral degree from the University of Victoria or the equivalent from a recognized institution may be allowed to pursue graduate studies leading to a second Master's or Doctoral degree:

1.7.1 The student must be admissible to the program.

1.7.2 The principal area of study or academic emphasis of the second degree must be distinct from that of the first degree.

1.7.3 At least 15 (for the Master's degree) or 30 (for the Doctoral degree) units of credit must be completed beyond those units required in the previous degree.

1.7.4 The student must meet all program and graduation requirements for the second degree beyond those required for the first degree.

1.7.5 Graduate degree programs within the Faculty of Graduate Studies cannot be taken concurrently.

1.7.6 None of the research done for the first degree shall be used for the second degree; as well, the supervisor for the first degree cannot be nominated to supervise the second degree.

1.7.7 None of the time spent in residence for the first doctoral degree shall count toward the residency requirement for the second doctoral degree.

### 1.8 Permission for Undergraduates to take Graduate Course Work

Students in their final year of a Bachelor's degree program at the University of Victoria who have a grade point average of at least 6.00 (B+) in the last 15 units of course work attempted may be permitted to register in a maximum of 3 units of graduate courses on the recommendation of the department concerned and with the consent of the Dean of Graduate Studies. Normally, such courses cannot be used for credit if the student subsequently registers in a graduate program.

No application for admission or supporting documentation is required; the graduate advisor of the department in which the courses are to be taken should send a recommendation to the Dean of Graduate Studies, specifying the courses selected. When written permission is received from the Dean, the student should complete an undergraduate course change notice, adding the approved courses to the undergraduate record.

### 1.9 Auditing Graduate Courses

An individual who is either a graduate student or holds a four year baccalaureate degree as defined in 1.3.1 and is recommended to the Faculty of Graduate Studies by a department, may be permitted to audit up to 3 units of graduate courses in a session. A continuing student should add the audit courses to the registration form; a new applicant taking courses for audit only should submit a completed Auditor Entry Form, as well as proof of degree conferral. Registration as an Auditor is subject to the following conditions:

1.9.1 Admittance to the class is dependent on the class size and other factors that the instructor and the department establish.

1.9.2 The degree of participation in the course is at the discretion of the department.

1.9.3 Attendance and participation shall grant no entitlement to an academic record of such attendance and shall not be considered as meeting admission, prerequisite or course requirements for any graduate program.

1.9.4. The fee, shown in the fee schedule in the Calendar, is payable at the end of the month in which the auditor registers, and is refundable according to Faculty deadlines.

### 1.10 Upgrading for Admission to Graduate Study

1.10.1 Faculty Admission Requirements Satisfied but Course Background inappropriate or Prerequisites Lacking

Upon the recommendation of the Department concerned, the Dean may approve the inclusion of the missing background or prerequisites as part of the requirements for the Master's or Doctoral degree.

1.10.2 Faculty Admission Requirements Not Satisfied

Upon the recommendation of the Department concerned, the Dean may approve a pre-entry program consisting of a minimum of six units of undergraduate course work numbered at the 300 or 400 level. This course work must be relevant to the proposed field of study, and must be completed within 12 months of the date of Dean's permission. An average of no less than 6.00 (B+) must be achieved in the six units, and no course must be completed at a level below 4.00 (B-).

This pre-entry option is only available to applicants who have been away from post secondary study for a minimum of one year. Students approved by the Dean for this pre-entry option are guaranteed admission to the Faculty of Graduate Studies upon successful completion of the recommended courses.

## 2.0 REGISTRATION PROCEDURES AND STATUS

2.1 All students admitted to the Faculty of Graduate Studies must normally register in person by mail or by touchtone telephone (check registration material for participating departments) during the dates specified for such registration. All Letters of Admission and Authorizations to Reregister that are not used to register in the term or session to which they apply are automatically cancelled. Students who are issued a Letter of Admission or Authorization to Reregister for September may not use this document for entry in January.

## 2.2 Reregistration

Students who were registered in the most recent winter session at the University may be authorized automatically for reregistration without the submission of an application; students who have withdrawn and wish to return, or students who are changing their degree program will be required to complete an application. Forms are available through the Graduate Admissions/Records Office.

Students who have registered at another university or college since last in attendance at the University are required to state the names of all educational institutions of postsecondary level attended and to submit two official transcripts of their academic records at these institutions to the Graduate Admissions and Records Office at least eight weeks prior to the session applied for.

## 2.3 Late Registration

The period for late registration in the Winter Session is the first five days of classes; in Summer Studies, the first two days of classes. Permission of the Dean is required for late registration beyond these dates.

## 2.4 Due Dates for Dropping Courses

Students may drop first term courses until the last day of classes in October, and second term and full year courses until the last day of classes in February, provided they submit course change notices to the Graduate Admissions and Records office by the appropriate date (see Calendar dates, pp. 3-4). Any failure to do so will result in the student receiving a failing grade (N) for the course. *Students should note that fee refund deadlines for the Faculty differ from the course drop deadlines (see Calendar dates, pp. 3-4).*

## 2.5 Definition of Full Time and Part Time Status

A full time graduate student during any one of the first term, second term, Summer Studies; or during the entire Winter Session, is one who is either:

- (a) enrolled in courses totalling a minimum of 3 units during the fall term, spring term, Summer Studies; or enrolled in a minimum of six units in the Winter Session; or
- (b) working on a dissertation (699), thesis (599), project (598), or cooperative education work term (800+) during a term or session.

A part time student is any student who does not fall into category (a) or (b) above.

*Students should note the additional restrictions concerning hours of work which are applied to award holders in the Faculty of Graduate Studies. Please consult the regulations governing eligibility for Faculty awards on page 295 of this Calendar.*

## 2.6 Maximum Academic Load

Maximum academic load in the Faculty of Graduate Studies during any one of the first term, second term, or Summer Studies is 9 units of course work or 7½ units of course work plus thesis, dissertation, or project. Maximum academic load for students registered in the entire Winter Session is 18 units of course work or 15 units of course work plus thesis, dissertation, or project. Departments may limit students to fewer units.

A graduate student may not be enrolled in courses such that the sum of the units for each course divided by the number of weeks over which the course extends is greater than one unit per week.

## 2.7 Continuity of Registration

All students are required to register in every term from the time of admission until the requirements for the degree have been met, unless withdrawal has been granted by the Dean of Graduate Studies. A student who does not reregister will have "withdrawn without permission" entered on their official academic record. This entry terminates the program; such students will not normally be considered for reregistration.

## 2.8 Withdrawal from the University

Students on degree programs who wish to withdraw, either temporarily or permanently, from the Faculty of Graduate Studies, must apply in writing to the Dean, with a supporting memo from their supervisor. A student may withdraw temporarily for no more than 3 terms in a Master's program and no more than 6 terms in a Doctoral program. It is considered that students who withdraw temporarily will not be undertaking any academic or research work nor using any of this University's facilities during the period of temporary withdrawal. Students may withdraw on a temporary basis by simply using a registration form, change notice, or touchtone telephone to declare their intentions.

Students must reregister in their graduate program in the session specified by the Dean in the letter of withdrawal. Students who do not reregister will be considered to have withdrawn without permission; this

status will be entered on the student's academic record. Only the time spent as "withdrawn" with permission of the Dean will not count as part of the limited time period prescribed for completion of the degree program.

Nondegree and auditing students may cancel their registration at the University by submitting a change notice to the Graduate Admissions and Records Office before specified deadlines which requests drops in all the registered courses.

### 2.9 Letter of Permission for Studies Elsewhere

Students currently registered in a graduate program who wish to undertake studies at another institution for transfer credit toward their graduate degree at this University must apply in writing to the Dean of Graduate Studies, specifying the host institution, the exact courses and their unit values. The application must be supported by the supervisor. If permission is granted, the student must also register concurrently in the comprehensive, project, thesis, or dissertation or be registered in a Coop Work Term, at the University of Victoria.

### 2.10 Western Deans' Agreement

Students currently registered in a graduate program who wish to undertake studies at a western Canadian university for transfer credit toward their graduate degree at the University of Victoria, may be eligible for "exchange" status under the provisions of the Western Deans' Agreement. Students must follow the procedure described under 2.9, specifying that the application is made under the Western Deans' Agreement. If the student is approved as "exchange", the university concerned will be notified by the Dean of Graduate Studies and all tuition fees applicable will be waived by the host institution; student fees, however, are still applied. All students attending other institutions under the provisions of the Western Deans' Agreement must register concurrently in the comprehensive, project, thesis, or dissertation at the University of Victoria.

### 3.0 STUDENT RESPONSIBILITY

**3.1** Students are responsible for ensuring that their courses have been chosen in conformity with Calendar regulations. Also, students are responsible for the completeness and accuracy of their registration. They must ensure that there is no discrepancy between the program they are following and that recorded in Graduate Records. All changes must be reported promptly to Graduate Records. Students may not take or receive credit for courses for which they are not registered, and may not drop courses after Faculty deadlines without permission of the Dean.

Students who register in a course for which they have received credit previously or for which they have received equivalent credit on transfer must indicate this by entering DUP (duplicate) on their registration forms. Both courses will be used in the calculation of the sessional and cumulative grade point average, provided that they are not designated as FNC (for no credit in the Faculty of Graduate Studies).

Students who have credit for courses taken more than seven years ago at the University must consult the departments to ensure that courses they may wish to take have not been taken previously under a different number.

A letter mailed to a student's address as it currently appears on record in Graduate Records will be deemed adequate notification to the student for all matters concerning the student record. Changes in address and telephone number must be reported promptly to Graduate Records.

### 3.2 Medical Requirement

The University, through Health Services, may require a student to take a medical examination at any time during attendance at the University. This measure exists to safeguard the medical welfare of the student body as a whole.

Students who are not residents of Canada are required to produce evidence of adequate sickness and hospital insurance coverage before registration can be considered complete. Such students are not eligible for insurance coverage through the Province of British Columbia, and must obtain coverage through a private company prior to registration. Further information is found under Health Services, page 23.

### 4.0 ACADEMIC STANDING

#### 4.1 Faculty of Graduate Studies Grading System:

Passing Grades:	Grade Point Value:
A+	9
A	8
A-	7
B+	6
B	5
B-	4
C+	3

C	2	
D	1	
*COM	N/A	Complete
Failing grades: (no supplementals offered in the Faculty of Graduate Studies)		
F	0	
*N	0	Did not write examination or otherwise complete course requirements by the end of the term of session.
Temporary Grades:		
*INC	N/A	Incomplete
*DEF	N/A	Deferred examination granted
*INP	N/A	In Progress
*CIC	N/A	Coop Interrupted Course

\*COM — used only for 0 unit graduate courses and those graduate courses designated by the Senate. Such courses are identified in the course listings.

INC — used for those graduate credit courses designated by the Senate and identified in the course listings; also used, with Dean's permission, for those graduate credit courses with regular grading (A to F, including N) which are not complete by the end of the term or session due to exceptional circumstances beyond the control of the instructor or student. INC must be replaced by a final grade not later than two months after the end of that term or session.

DEF — used only for graduate credit courses in which a deferred examination has been granted because of illness, an accident or family affliction.

INP — used only for seminars offered on the same basis as dissertations or theses and designated by Senate (identified in the course listings); work terms; dissertations; theses; projects; comprehensives. In the case of work terms, a final grade must replace INP within two months of the end of term; for dissertations, theses, designated seminars, projects and comprehensives, a final grade must replace INP by the end of the program. If the student does not reregister within the five year (Master's) or seven year (Ph.D.) limit for the degree, the final grades will be N.

N — in exceptional circumstances, the Dean may authorize the removal of an N grade and the replacement of it by another grade. In accordance with Senate regulations, an instructor shall advise students at the beginning of the term or session of the circumstances under which they would be assigned a grade of N.

CIC — used for three unit courses whose completion has been interrupted by a coop work term. A final grade must replace the CIC grade within twenty months after the assignment of CIC.

### 4.2 Course Challenge

With the exception of the M.P.A. foundation courses, graduate course challenge is not allowed in the Faculty of Graduate Studies.

### 5.0 ACADEMIC STANDARDS FOR GRADUATE DEGREE PROGRAMS

#### 5.1 Course and Program Requirements

##### 5.1.1 Minimum degree requirements

The minimum requirement for a Master's degree is 15 units of work, and satisfactory completion of the prescribed program.

The minimum requirement for the degree of Doctor of Philosophy is 30 units of work beyond the Master's level or 45 units beyond the Bachelor's level, and satisfactory completion of the prescribed program.

##### 5.1.2 Graduate Programs

Within the first session of attendance in a graduate degree program, a supervisor will be nominated and a completed graduate program form will be forwarded to the Faculty of Graduate Studies by the graduate adviser on behalf of each student. Unless otherwise specified, the remainder of the prescribed supervisory committee will be nominated and names forwarded to the Faculty by the graduate adviser, within one session of the first registration in the thesis, project or dissertation.

##### 5.1.3 Course Work and Research

Considerable variation is permitted in the balance between research and the course work required for the Master's degree, although most programs include a thesis based on research.

The Doctoral program requires the planning and completion of independent and original work leading to an advance in knowledge in the student's chosen field or fields of study. In addition, a broad knowledge of the field or fields of study must be demonstrated through the candi-

dacy examination. The major portion of the Doctoral program will be devoted to a research project culminating in a dissertation which satisfies the requirements of the Faculty of Graduate Studies. The material must be of sufficient merit to meet the standards of scholarly publications. Where the research justifies it, the Doctoral degree may be awarded for the dissertation alone.

When research is completed, and before the thesis or dissertation is written, the student should contact the Graduate Admissions and Records Office for a copy of the Thesis/Dissertation Guidelines, which specify academic and technical requirements to ensure acceptability of the paper by the University and the National Library. Every student must then make an appointment with the Archivist's Office in the McPherson Library to review these guidelines, and to receive advice on technical requirements specific to the individual paper.

#### 5.1.4 Minimum Graduate Component of Master's Degree

A Master's candidate must complete a minimum of 12 units of graduate credit out of the total units required for the degree. Individual departments may require a higher number of units at the graduate level. Courses numbered at the 100 and 200 level may be included in the program as prerequisites but will be indicated on the student record as FNC (for no credit on a graduate program); as well, courses indicated on the record as FNC will not be included in sessional or cumulative grade point average calculations.

#### 5.1.5 Language Requirements

Master's or Doctoral programs may require a reading knowledge of one or more languages other than English. Language requirements will be prescribed for individual students by the supervisory committee according to departmental regulations (see departmental entries). Such requirements are considered part of the student's program. When a language requirement is imposed, it must be met prior to taking the oral examination or, in the case of nonthesis Master's programs, before the completion of the comprehensive examination and/or the project oral.

#### 5.1.6 Applicability of Transfer Credit

On the recommendation of the department or school concerned, the Faculty of Graduate Studies may accept courses taken at other institutions for credit on a graduate program. However, at least half of the work must be completed at the University of Victoria.

### 5.2 Time Limits

Normally, a student proceeding toward a Master's degree will be required to complete all the requirements for the degree within five years (sixty consecutive months) from the date of the first registration in the Master's degree. In no case will a degree be awarded in less than twelve consecutive months from the time of that registration. However, it is expected that a full time student should complete a Master's degree within 24 consecutive months from the date of first registration. A student in a full time M.P.A. program is expected to complete the degree within 36 consecutive months from the date of first registration.

Normally, a student proceeding toward a Doctoral degree will be required to complete all the requirements within seven years (eighty-four consecutive months) from the date of first registration in the program. If the student has transferred to the Doctoral program after an initial period in a Master's program, completion is required within seven years of the date of the first registration in the Master's program. A degree will not be awarded in less than twenty-four consecutive months from the time of that registration. However, it is expected that the holder of a Master's degree should complete a full time Doctoral program within 36 months of the date of first registration; the holder of a Bachelor's degree should complete such a program within 48 months of the date of first registration.

Students enrolled in a cooperative education program at the Master's level will have an additional 8 months added on to the normal completion times noted above; at the Doctoral level, 12 months will be added.

### 5.3 Residence Requirement

There are no fixed residence requirements at the University of Victoria for students proceeding to a Master's degree. However, see 5.16 and 5.2 above.

A student proceeding to the Doctoral degree must register at the University of Victoria and pursue studies under the direction of a faculty member as a full time student for at least two Winter Sessions; this requirement should be undertaken upon first registration in the program and must be met within 36 consecutive months after the date of first registration. A student entering the Doctoral program with a Master's degree must meet this residency requirement for the equivalent of one Winter Session, which should be undertaken upon first registration in the program and must be completed within 24 consecutive months after the date of first registration.

### 5.4 Performance

Students registered in the Faculty must maintain a cumulative grade

point average of at least 5.00 (B) reported on a term basis, in all graded courses taken for credit in the Faculty of Graduate Studies. Individual departments or schools may set higher standards. Every grade of C+ or lower in a course taken for credit in the Faculty of Graduate Studies will be reviewed by the supervisory committee of the student, and a recommendation made to the Dean of Graduate Studies. In addition students registered in a project/thesis/dissertation will have their progress evaluated through an Annual Report filed with the Faculty by their supervisor (in consultation with the supervisory committee and the graduate adviser) which contains recommendations for continuation. Conditions may be imposed by the Faculty (upon the advice of the supervisory committee) for continuation in the program; these must be met within the next session of attendance, or the student will be required to withdraw.

A student who fails to meet academic standards, or whose dissertation, thesis, or project is not progressing satisfactorily, may be required to withdraw from the Faculty of Graduate Studies with the advice and consent of the department concerned through its graduate adviser, chairman, or chairman's delegate.

### 5.5 Supervisory Committee

#### 5.5.1 Master's With Thesis

With the exception of course work degrees requiring a project or comprehensive examination, there shall be a supervisory committee for the Master's degree of at least three members including the supervisor, approved by the Faculty of Graduate Studies. It is recommended that one of these should be from outside the department.

#### 5.5.2 Master's Without Thesis

For course work degrees requiring a project or comprehensive examination, there shall be a supervisory committee of at least three members approved by the Faculty of Graduate Studies. The supervisor shall be a faculty member of the Faculty of Graduate Studies, the second member of the committee must be the department graduate adviser or his designate, and the third member of the committee may be external to the department or University and nominated by the department at the time of the comprehensive examination or project oral.

#### 5.5.3 Doctoral Degree

For the Doctoral degree a student's program shall be under the direction of a supervisory committee of at least four members, approved by the Faculty of Graduate Studies. The chairman of the committee shall be the faculty member under whose supervision the student is carrying out the major research component of the program. At least one member of the committee shall be from outside the department in which the major research is being carried out. The committee shall recommend the program to the Faculty of Graduate Studies.

#### 5.5.4 Role of the Supervisor

The supervisory committee shall have a chairman who shall ordinarily be designated as the supervisor. The committee shall: recommend to the Faculty of Graduate Studies a program of studies; supervise the project, thesis or dissertation; participate in a final oral examination of the candidate on the research and areas of study. The committee may conduct other examinations, and shall recommend to the Faculty of Graduate Studies whether or not a degree be awarded to a candidate.

#### 5.5.5 Role of the Graduate Adviser

Except as specified elsewhere, the departmental graduate adviser is the official liaison person between the department and the Faculty of Graduate Studies.

The graduate adviser makes recommendations on the following matters to the Faculty of Graduate Studies: graduate admissions, awards administered by the Faculty of Graduate Studies, and any changes to the student record (including supervisory committee, program, and registration). The Annual Report on student progress, and any Requests for Oral must be cosigned by the department graduate adviser, before transmission to the Faculty.

The graduate adviser also serves as the primary contact for students in all matters concerning graduate programs offered by the department.

### 5.6 Doctoral Candidacy Examination

Within two years of registration as a provisional Doctoral student and at least six months before the final oral examination, a student must pass a candidacy examination in subjects relevant to the general field of the student's research and such other examinations, written or oral, or both, as may be required by the supervisory committee.

### 5.7 Oral Examinations and Examining Committees

#### 5.7.1 Oral Examination Requirement

A final oral examination is required of all students. A student may proceed to the oral examination if all courses taken for credit in the Faculty are completed, the cumulative grade point average on all course work taken for credit in the Faculty is 5.00 or more, and any language requirement has been met. The result of the examination will be entered on the student's academic record and transcript as "Complete" if the

candidate is successful. If the candidate is not successful, the entry will be "N", and a degree will not be awarded. In certain course work Master's degrees, the final oral may be replaced by a written comprehensive examination.

Date of submission of thesis or dissertation will be specified by the Faculty of Graduate Studies for each convocation period, and circulated to all departments at least four months prior to the dates set for submission. The required copies should be submitted directly to the office of the Dean of Graduate Studies, and a declaration verifying that submitted copies are "fair and final" must be signed by the student. The Dean will forward only the Doctoral dissertation directly to the external examiner/s appointed. Doctoral dissertations submitted to the Faculty of Graduate Studies must be accompanied by a money order made payable to University Microfilms International for \$30 U.S. This fee covers the cost of publication of an abstract in "Dissertation Abstracts".

Regulations covering the format of thesis and dissertation may be obtained from the Graduate Admissions & Records Office.

If, at the final oral examination for the Master's or Doctoral degree, two or more members of the examining committee are opposed to passing the student, the student will not be recommended for the degree. A student who fails under this condition will have the right to petition the Dean of Graduate Studies within three months for a reexamination, giving reasons in writing. In those cases where the appeal is granted, the Dean, in consultation with the department, may appoint a new external examiner or examiners.

#### 5.7.2 Examiner from Outside the Department

For the Master's degree, the Faculty of Graduate Studies shall appoint an examiner from outside the department concerned; additional external examiners may also be appointed by the Dean of Graduate Studies. Oral examinations for the Master's degree are open to the public.

The Doctoral dissertation shall be assessed by an examining committee which will consist of the supervisory committee and at least one other examiner external to the University, who shall be selected by the Faculty of Graduate Studies in consultation with the department concerned and who is an authority in the chosen field of research. The Dean of Graduate Studies or his nominee will act as Chairman at the final oral examination. Oral examinations for the degree of Doctor of Philosophy are open to the public. Notice of examination will be communicated to all faculty members of the department involved and to each academic department at least 14 days prior to the date of the examination.

#### 5.8 Application for Graduation

Senate grants degrees in November and May each year. Each candidate for a degree must make formal application for graduation when

registering in the final summer or winter session preceding the candidate's anticipated graduation. Deadlines are July 1 for fall graduation and December 1 for Spring graduation; forms are available through the Graduate Admissions and Records Office. A fee is assessed at the time of application, and is payable by the end of that month.

#### 5.9 Letter of Recommendation for Degree

When a student has successfully defended the project/thesis/dissertation and made any revisions required, the supervisory committee shall recommend award of degree. This recommendation goes for approval to the Dean of Graduate Studies, the Faculty of Graduate Studies Executive Committee, the Faculty of Graduate Studies, and finally to the Senate of the University, which has the authority to award the degree.

#### 6.0 APPEAL PROCEDURE

Students who wish to protest decisions relating to their academic studies may do so; please consult the appeal regulations on page 13 of this Calendar. A student who wishes to appeal to the Senate a decision of the Faculty of Graduate Studies, shall lodge a written notice of appeal with the Secretary of Senate, Office of the Registrar, within 10 days of being informed in writing of the Faculty's final decision.

#### 7.0 RESEARCH SERVICES

All matters concerning the administration of research grants and contracts are handled by the office of Research Administration, to which inquiries concerning research policies and procedures should be directed. Students whose research falls within the University definition of research involving human subjects must receive prior approval from the appropriate screening committee for research involving human subjects. Research Administration should be contacted for further details concerning research oriented services offered to graduate students.

#### 8.0 TRANSCRIPT REQUESTS

Official transcripts of record are available through Graduate Records; costs are outlined in the fees section of the calendar. Those students wishing verification of completion of degree requirements prior to Senate ratification of the degree, should specify provision of a "supporting letter" in addition to the official transcript.

#### 9.0 WORK PERMITS

Department chairmen wishing to hire foreign students for teaching or research duties may apply on their behalf to the Dean of Graduate Studies for a work permit to cover a specific period of academic study at the University. Such students must be registered in a degree program in the Faculty of Graduate Studies.

## ANTHROPOLOGY

The Department of Anthropology offers a course of study leading to the degree of Master of Arts. This program usually requires two years to complete, but in exceptional cases, the required time may be shorter.

**Admission** — In addition to transcripts, letters of recommendation, and application forms required by the Faculty of Graduate Studies, the department requires applicants to submit a recent sample of their work (term paper or Honours thesis). Ordinarily a B+ average (6.00 G.P.A.) for the last two years of university work is a minimum requirement for admission to the program.

The Master of Arts degree in anthropology is a general degree requiring a candidate to have a broad knowledge of the subfields of the discipline. In addition to requirements and procedures specified by the Faculty of Graduate Studies, the following general comments apply.

#### 1. Program of Studies

The Department offers two programs of equal status, leading to the M.A. degree: (a) by course work and thesis; and (b) by course work only.

#### A. Thesis Option:

This program involves 12 units of course work and a 6 unit thesis.

**CORE COURSES:** A student's program will include the following core courses:

- 500, Seminar in Anthropological Theory, 3 units
- 501, Seminar in Social and Cultural Anthropology, 1½ units
- 540, Seminar in Archaeology and Culture History, 1½ units
- 550, Seminar in Physical Anthropology, 1½ units
- 560 (LING 560), Linguistic Anthropology, 1½ units.

Core courses contribute 9 units toward the 18 unit minimum requirement for the thesis option.

**THESIS:** The thesis, carrying 6 units of credit, must meet the stylistic requirements of the department and must be submitted according to a

time schedule set by the department. Normally a thesis will entail specialized research on a topical area chosen in consultation with the student's supervisory committee.

**OPTIONAL COURSES:** Students may choose the remainder of their program from the departmental listings of graduate courses, and may take a maximum of 6 units of upper level undergraduate courses.

#### B. Nonthesis Option

This program involves a minimum of 18 units of course work if the student is sufficiently well prepared to complete the program in one calendar year. Most students will require 2 years to complete the program and will be required to take a minimum of 21 units of course work.

**CORE COURSES:** A student's program will include the following core courses:

- 500 Seminar in Anthropological Theory, 3 units
- 501 Seminar in Social and Cultural Anthropology, 1½ units
- 540 Seminar in Archaeology and Culture History, 1½ units
- 550 Seminar in Physical Anthropology, 1½ units
- 560 (LING 560), Linguistic Anthropology, 1½ units.

**ADDITIONAL COURSES:** In addition to the core courses, a student's program should include 3 units selected from a, b, c, or d below:

- (a) 510 (1½) Selected Topics in Social and Cultural Anthropology
- (b) 530 (1½) Ethnology of a Selected Area
- (c) 542 (1½) Archaeology of a Selected Area
- (d) 552 (1½) Selected Topics in Physical Anthropology plus 6 units of electives. (3 additional units of electives are required if the student completes the program in 2 years.) Students may take a maximum of 6 units of upper level undergraduate courses.

**ORAL EXAMINATION:** At the end of the program there will be a final oral examination based on three papers prepared as part of the require-

ments for graduate courses. The three papers will be selected to reflect a variety of interests and approaches.

### 2. Length of Program

Most students require two years to complete the master's degree program, although it is possible for a student with a satisfactory background to complete the degree in one year. In addition to the graduate courses, students are required to have passed undergraduate courses equivalent to those comprising the Anthropology Honours Program (excluding 499) as outlined in the Calendar. Students without the equivalent of the University of Victoria Honours Program must take the appropriate undergraduate courses to satisfy the honours requirements before completing their program. The program outlined above indicates the minimal requirements for graduate students; however, it is the responsibility of the student's supervisory committee to tailor the program to individual needs.

For example, students who intend to enter the program without an undergraduate major would be advised to spend a first year in upper level undergraduate courses before entering the core program. Similarly, students who have not had courses in quantitative methods and in anthropological linguistics will be advised to elect Anthropology 316 and 317 and Linguistics 361, respectively, to correct these deficiencies.

Prospective students are urged to consult the department for guidance in planning a program of study and for more specific information about course offerings.

### Faculty and Current Areas of Interest

William H. Alkire, Ph.D.  
(Illinois)

Ethnology: cultural ecology, Micronesia and Southeast Asia

N. Ross Crumrine, Ph.D.  
(Arizona)

Leland H. Donald, Ph.D.  
(Oregon)

Donald H. Mitchell, Ph.D.  
(Oregon)

David S. Moyer, Ph.D.  
(Leiden)

Nicolas Rolland, Ph.D.  
(Cambridge)

Eric A. Roth, Ph.D.  
(Toronto)

Peter H. Stephenson, Ph.D.  
(Toronto)

Ethnology: symbolic anthropology, mythology, peasants, culture change, Latin America, Southwest North America, Philippines

Ethnology: social organization, quantitative methods, West Africa, Northwest Coast

Archaeology: ethnohistory, cultural ecology, heritage resource management, Pacific Northwest

Ethnology: social organization, structural anthropology, law, Arctic, Indonesia, Malaysia

Archaeology: technology, early man, prehistoric economy, method and theory, Mediterranean, Western Asia, Africa

Physical Anthropology: demography, hunter-gatherers, computer simulation, human microevolution, Subarctic and Arctic North America, India

Ethnology: psychological anthropology, symbolism, medical anthropology, hermeneutics, communal societies, Canada, Europe

## BIOCHEMISTRY AND MICROBIOLOGY

The Department of Biochemistry and Microbiology offers courses leading to the degrees of Master of Science and Doctor of Philosophy in Biochemistry or Microbiology.

The general regulations governing the granting of advanced degrees as stated in the Calendar on pages 211-216 are applicable.

1. Examinations, oral or written, are mandatory as aids in the planning of individual academic programs.
2. Applicants should arrange to take the G.R.E. (Graduate Record Examination) and submit the results to the Faculty of Graduate Studies with their applications. Students whose native language is not English should submit, in addition to the G.R.E., results of the T.O.E.F.L. (Test of English as a Foreign Language) with their application.
3. All graduate students are required to participate in Biochemistry 580 (seminar) or Microbiology 580 (seminar) throughout the period of registration.
4. Candidates for graduate degrees are required to complete Biochemistry 599 or Microbiology 599 (M.Sc. Thesis) or 699 (Ph.D. Dissertation). In addition to the seminar and thesis or dissertation requirements, candidates for the M.Sc. degree are required to complete a minimum of 9 units of graduate course work. Candidates proceeding to a Ph.D. degree from a B.Sc. require a minimum of 15 units of graduate course work, while candidates proceeding to a Ph.D. degree from an M.Sc. require a minimum of 6 units of graduate course work.

### Applications

Requests for information regarding graduate studies in Biochemistry and Microbiology should be sent to the Chairman. Application forms are available from the office of the Faculty of Graduate Studies.

Applicants may be considered for admission at any time. Normally applicants with less than a B+ (6.00 G.P.A.) or equivalent average will not be recommended for admission.

### Faculty and Current Areas of Interest

J. Thomas Buckley, Ph.D.  
(McGill)

Edward E. Ishiguro, Ph.D.  
(Illinois)

William W. Kay, Ph.D.  
(British Columbia)

Alastair T. Matheson, Ph.D.  
(Toronto)

Robert W. Olafson, Ph.D.  
(Alberta)

Terry W. Pearson, Ph.D.  
(British Columbia)

Paul J. Romaniuk, Ph.D.  
(McMaster)

Trevor J. Trust, Ph.D.  
(Melbourne)

Properties and functions of plasma membranes

Biochemical and genetic studies on bacterial cell wall synthesis and antibiotic-induced autolysis; molecular basis for penicillin tolerance; molecular biology of infectious diseases of salmonid fishes.

Genetic regulation and biochemistry of membrane transport systems in bacteria; cell surface virulence factors

Structure of archaebacterial ribosomes; structure and evolution of ribosomal proteins; structure of ribosomal protein genes; RNA-protein interactions.

Structure function relationships of proteins as related to environmental and clinical aspects of heavy metal metabolism

Immunochemistry and biochemistry of parasitic diseases; immunology of membrane antigens; immunodiagnosis of disease

Structure and function of RNA; molecular basis of RNA protein interactions

Molecular basis for bacterial virulence and antigenicity

## BIOLOGY

The Department of Biology offers programs leading to the degrees of Master of Science and Doctor of Philosophy in the following general areas:

Marine Biology

Terrestrial and Freshwater Ecology  
Plant and Animal Morphology  
Cellular and Developmental Biology  
Systematic Biology

### Facilities

Facilities available include herbarium, greenhouses, constant environment rooms, equipment for radioisotope analysis, an electron microscope laboratory equipped with scanning, transmission and analytical electron microscopes, and closed circulation seawater systems. Ships are available for oceanographic work, including the University's 16.4 metre marine science service vessel JOHN STRICKLAND. Marine, terrestrial and limnological environments permit field work throughout the year.

### Applications

Initial inquiries regarding graduate studies in Biology should be addressed to the Graduate Adviser, Department of Biology. Application forms may be obtained from the office of the Dean of Graduate Studies.

Consideration of an applicant is dependent on a departmental faculty member first agreeing to become the applicant's Supervisor. If the applicant is admitted, the Supervisor will recommend a list of individuals to act as a Supervisory Committee under the Supervisor's chairmanship.

Applicants to the Department of Biology should arrange to take the G.R.E. (Graduate Record Examination) and submit the results to the Graduate Admission and Records Office. Applicants whose native language is not English should, in addition to the G.R.E., write the TOEFL (Test of English as a Foreign Language) and submit the scores to the Faculty of Graduate Studies (see page 212 for Faculty requirements) together with their application forms and G.R.E. results. Even with passing TOEFL scores, students may be required to take English language courses as well as their other course work.

All M.Sc. and Ph.D. candidates admitted to the Department of Biology are expected to have or to make up a background knowledge of basic biology at least equivalent to that of a B.Sc. student graduating from this department.

Emphasis in graduate programs is on independent research. An M.Sc. student can expect to take a minimum of 2 years and a Ph.D. student 3 years if entering with a M.Sc. or 4 years if entering with a B.Sc. Students entering with a B.Sc. and intending to take a Ph.D. program will initially be registered in a M.Sc. program. They may be transferred to a Ph.D. program at the end of their first year, on the recommendation of their Supervisory Committee and the Department of Biology and approval by the Dean of Graduate Studies. The M.Sc. program normally requires a minimum of 17½ units, with not less than 6 units of graduate courses and BIOL 500 and 560. The thesis must be at least 9 units. The Ph.D. program usually requires a minimum of 32½ units beyond the M.Sc. or 47½ units beyond the B.Sc. At least 6 units of graduate courses and BIOL 500 and 560 are normally required. The dissertation must be a minimum of 18 units. Normally, work as a research assistant or teaching assistant is an integral part of graduate programs.

Applications from students with a first class academic record will be considered for recommendation at any time. Applications from students who have less than a first class average will not normally be considered until the end of February, when all such applications will be considered and evaluated together. Applicants with less than a B+ average or its equivalent in their last two years of work will not normally be recommended for admission by the Department of Biology.

### Faculty and Areas of Research

Geraldine A. Allen, Ph.D.  
(Oregon State)

Flowering plant systematics, evolution and population biology

Michael J. Ashwood-Smith, Ph.D.  
(London)

Ultra violet photobiology and mechanisms of mutation induction; low temperature biology

Alan P. Austin, Ph.D.  
(Wales)

Marine and freshwater phycology and ecology; environmental impact assessment

David J. Ballantyne, Ph.D.  
(Maryland)

Plant physiology; mode of action of phytotoxic air pollutants

Marcus A.M. Bell, Ph.D.  
(British Columbia)

Vegetation and landscape ecology

Ralph O. Brinkhurst, D.Sc.  
(London)

Marine benthic zoology; ecology of freshwater and marine Oligochaeta

Robert D. Burke, Ph.D.  
(Alberta)

Developmental biology, histology, embryology of marine invertebrates, metamorphosis

Derek V. Ellis, Ph.D.  
(McGill)

Marine ecology; sediment benthos; environmental impact assessment

Arthur R. Fontaine, D.Phil.  
(Oxford)

Functional morphology of marine invertebrates; echinoderms

Patrick T. Gregory, Ph.D.  
(Manitoba)

Population ecology of reptiles and amphibians

John S. Hayward, Ph.D.  
(British Columbia)

Environmental physiology; temperature adaptation in homeotherms

Louis A. Hobson, Ph.D.  
(Washington)

Biological oceanography; phytoplankton ecology and physiology

Jack L. Littlepage, Ph.D.  
(Stanford)

Biological oceanography; zooplankton physiology and ecology

George O. Mackie, D.Phil.  
(Oxford)

Neurobiology of invertebrates especially coelenterates and tunicates

John E. McInerney, Ph.D.  
(British Columbia)

Behaviour and physiology of fishes

John N. Owens, Ph.D.  
(Oregon State)

Plant anatomy; morphogenesis and reproduction of conifers

John W. Paden, Ph.D.  
(Idaho)

Mycology; ascomycete morphology and systematics; soil microbiology

Miles Paul, Ph.D.  
(Stanford)

Developmental biology; marine invertebrate embryology

Robert G.B. Reid, Ph.D.  
(Glasgow)

Molluscan feeding, digestion, symbiosis; detoxification of metals in bivalves; evolutionary theory

Richard A. Ring, Ph.D.  
(Glasgow)

Physiology and ecology of insects

E. Derek Styles, Ph.D.  
(Wisconsin)

Maize genetics; flavonoid biosynthesis

Verena J. Tunnicliffe, Ph.D.  
(Yale)

Marine benthic ecology and community structure

## CHEMISTRY

The Department offers programs of study leading to the degrees of Master of Science and Doctor of Philosophy. Research areas include the following: Organometallic chemistry; inorganic kinetics; transition metal chemistry; inorganic photochemistry; hydrides of silicon, boron, and transition metals; multinuclear NMR studies; synthetic organic chemistry; natural products; biogenesis; physical organic chemistry; photochemistry; kinetics and mechanisms; free radical chemistry; structural studies, x-ray crystallography; molecular spectroscopy; electrode kinetics; surface phenomena; solid state luminescence; electron impact phenomena; molecular orbital calculations; photoelectron spectroscopy, bioinorganic chemistry.

Amongst the many modern research instruments available are: high resolution mass spectrometer and GC/MS with chemical ionization, automated x-ray diffractometers, ESR with ENDOR and high field,

multinuclear FT NMR facilities, medium and high resolution grating spectrographs, laser Raman spectrometer, infrared and ultraviolet spectrometers, gas and high performance liquid chromatographs, PAR electrochemical system, combined ultra high vacuum/electrochemistry apparatus, PDP11, VAX and IBM computers.

Students admitted to M.Sc. (or Ph.D.) programs in Chemistry who do not have the equivalent of an Honours degree will be required to make up any deficiencies by enrolling for credit sufficient of the fourth year undergraduate courses CHEM 424, 425, 433, 434, 444 and 446 to give them three units of credit in their major area of specialty, and at least 1½ units of credit in each of two other areas. Such makeup course requirements are additional to those required for the graduate degree.

Because of the varied backgrounds of students entering graduate school, the Department requires all entering graduate students to take a

set of orientation examinations soon after their arrival. Students showing deficiencies in their knowledge of fundamental chemistry will be required to make good the deficit by approved reading or by taking and passing the appropriate undergraduate courses. Failure to achieve a minimum of B- in an undergraduate chemistry course will normally result in the student being asked to withdraw.

Students for graduate degrees are required to complete Chemistry 599 (M.Sc. Thesis) or 699 (Ph.D. Dissertation). They are also required to take 509 (Seminar) throughout their period of registration as well as 510 (Instrumental Techniques) in their first year of registration.

i) Candidates for M.Sc. degrees will normally be required to complete 3 units of graduate lecture courses and 6 units of discussion courses chosen from 522 (A-D), 630 (A-D), or 644 (A-D).

ii) Candidates for Ph.D. degrees will normally be required to complete 6 units of graduate lecture courses and 9 units of discussion courses chosen from 522 (A-D), 630 (A-D), or 644 (A-D).

Appropriate courses from this or other departments may be substituted with the permission of the Chairman.

### Faculty and Major Fields of Research

Walter J. Balfour, Ph.D. (McMaster), D.Sc. (Aberdeen)	Electronic spectroscopy
Gordon W. Bushnell, Ph.D. (West Indies)	Crystallography
Thomas W. Dingle, Ph.D. (Alberta)	Theoretical chemistry
Keith R. Dixon, Ph.D. (Strathclyde)	Transition metal and organometallic chemistry
Alfred Fischer, Ph.D. (New Zealand)	Physical organic chemistry

Thomas M. Fyles, Ph.D. (York)	Synthetic and physical organic chemistry; complexation and transport of ions.
David A. Harrington, Ph.D. (Auckland)	Electrochemistry and surface science
Martin B. Hocking, Ph.D. (Southampton)	Synthetic and physical organic chemistry; pollution control
Alexander D. Kirk, Ph.D. (Edinburgh)	Photochemistry and luminescence of metal complexes
Alexander McAuley, Ph.D., D.Sc. (Glasgow)	Inorganic kinetics and mechanisms — solvolysis and redox reactions; bioinorganic chemistry; heavy metal toxicity
Reginald H. Mitchell, Ph.D. (Cambridge)	Synthesis of novel aromatic hydrocarbons and their environmental effects
Gerald A. Poulton, Ph.D. (Saskatchewan)	Natural products
Frank P. Robinson, Ph.D. (Alberta)	Organic synthesis; physical organic chemistry
Stephen R. Stobart, Ph.D. (Nottingham)	Electronic structure and reactivity of binuclear transition metal complexes; organometallic chemistry and catalysis
Peter C. Wan, Ph.D. (Toronto)	Organic photochemistry; reactive intermediates.
Paul R. West, Ph.D. (McMaster)	Electron spin resonance; organic free radical reaction mechanisms; environmental chemistry

## CLASSICS

The Department of Classics offers a two year program of studies leading to the degree of Master of Arts in Classics. Course work will include both Greek and Latin language and literature, but the thesis may be written in the areas of Greek Literature, Latin Literature, Ancient History, or Classical Archaeology.

A minimum of 15 units of work from Classics Department offerings is required for the M.A. degree. In the first year of study the candidate will take a full load of course work, consisting of current offerings at the 500 level and a supplement of recommended upper level undergraduate courses. In the second year of study the candidate will write a thesis of 6 unit value and complete course work requirements at the 500 level. In exceptional circumstances a candidate may be allowed to write a thesis of 9 unit value. Candidates should note that University regulations require that at least 12 units of work at the 500 level are required for the M.A. degree, and that at least 10 units of work a year should be offered by full time students. There will be a final oral examination on the thesis. Proficiency in reading either French or German or Italian must be demonstrated. For further information please consult the Graduate Advisor of the Department and read the Department's entry in the undergraduate section of this Calendar.

### Faculty and Fields of Research

Keith R. Bradley, B. Litt. (Oxford)	Roman history, especially Late Republic and Early Empire; Roman social relations; Roman historians and historiography
David A. Campbell, M.A. (Oxford)	Greek poetry
John G. Fitch, Ph.D. (Cornell)	Greek tragedy, especially Sophocles; Roman tragedy, especially Seneca; post Augustan Latin literature, particularly poetry
John P. Oleson, Ph.D. (Harvard)	Ancient technology, maritime archaeology, Etruscan and Roman architecture
Samuel E. Scully Ph.D. (Toronto)	Greek epic and tragedy
Gordon S. Shrimpton, Ph.D. (Stanford)	5th and 4th century Greek history and historiography
Peter L. Smith, Ph.D. (Yale)	Roman comedy; Augustan Latin poetry

## COMPUTER SCIENCE

### Program

The Department of Computer Science offers a graduate program leading to the degree of Master of Arts (M.A.) or Master of Science (M.Sc.) in Computer Science. A Ph.D. program in Computer Science is available by special arrangement. The Department also participates in the Cooperative Education program. Faculty members in the Department are pursuing research in areas that include Software Engineering, Software Systems, Theory of Computing, Programming Languages, Distributed Computing, Logic Programming, VLSI Design and Test, and Numerical Analysis.

The program of study for each student is determined by the student's supervisory committee in consultation with the student. The Master's Program consists of a minimum of 15 units which includes course work, a seminar course (C SC 595) and a Master's thesis (C SC 599). In certain circumstances, students may register for a Master's project (C SC 598) instead of a thesis. At least 12 units of the Program must be at the 500 level or higher. The remaining units must be at the 400 level or higher. The Master's thesis must be defended in an oral examination. A student

who chooses the project option will also have an oral examination. This examination will cover the project as well as material from three courses chosen by the student's supervisory committee in consultation with the student.

Individuals interested in the Cooperative Master's degree or in the Ph.D. degree should contact the Graduate Adviser of the Computer Science Department for details about these programs.

Applicants for Graduate Studies in the Department should have a major degree in Computer Science (or its equivalent) or a major degree in Mathematics with an emphasis on Computer Science. A student who does not have such a degree can be admitted to the program, but may be required to complete additional makeup courses. In doing so, the student must obtain a grade of at least B (5.00) in each such makeup course, and an average B+ (6.00) overall in the makeup courses.

### Facilities

The Department offers its graduate students a wide range of equipment for study and research. This equipment includes several multi-user

machines supporting UNIX, as well as Sun workstations (monochrome and colour), an IBM 3083 mainframe and laser printers. There are also numerous microcomputers of various kinds available for specific research projects. The Sun workstations and other UNIX computers are connected with Ethernet, and can also be accessed from remote terminals.

#### Faculty and Fields of Research

John A. Ellis, Ph.D. (Northwestern)	Theoretical computer science, computational complexity, algorithms
Daniel M. Hoffman, Ph.D. (N. Carolina, Chapel Hill)	Software engineering
R. Nigel Horspool, Ph.D. (Toronto)	Compiler construction, programming languages, operating systems
Michael R. Levy, Ph.D. (Waterloo)	Abstract data types, programming languages, software specifications, software engineering
D. Michael Miller, Ph.D. (Manitoba)	Fault diagnosis, design for testability, computer aided design for VLSI systems, multiple valued logic

Hans A. Muller, Ph.D. (Rice)	Software Engineering; programming in the large; programming environments; programming languages.
Jon C. Muzio, Ph.D. (Nottingham)	Fault detection, fault tolerant computing, multiple valued systems
D. Dale Olesky, Ph.D. (Toronto)	Numerical analysis, linear algebra
Frank D.K. Roberts, Ph.D. (Liverpool)	Numerical analysis, operations research
Frank Ruskey, Ph.D. (Calif., San Diego)	Combinatorial algorithms
Micaela Serra, Ph.D. (Victoria)	VLSI design, fault tolerant computing, multiple valued systems
Gholamali C. Shoja, D.Phil. (Sussex)	Distributed and real time operating systems, computer communications, architectural and runtime support for expert systems
Maarten van Emden, Ph.D. (Amsterdam)	Logic programming
William W. Wadge, Ph.D. (Calif.-Berkeley)	Dataflow computation, nonprocedural languages, semantics; data types, symbolic logic

## ECONOMICS

The Department of Economics offers courses of study in applied economics leading to the degree of Master of Arts. The program is designed to provide students with the analytical expertise and practical knowledge to excel in positions in research and analysis in the private and public sectors of the economy. Areas of concentration are available in: Regional Economics, Urban Economics, Methodology of Applied Economics, International Trade, Economic Development, Public Finance, Economic History, Human Resources (including Labour Economics, Health Economics, Education Economics, the Economics of Crime), Natural Resource and Environmental Economics, Econometrics, Applied Mathematics in Economics, Monetary Policy, Industrial Organization and Public Policy, and other areas which may be arranged in consultation with the Department.

#### Admission

An undergraduate degree in Economics or its equivalent, with at least a B average in the last two years leading to the degree, is required for admission. Applicants must have mastered basic techniques of mathematics and statistics and have demonstrated competence in economic theory and applied areas. Students with insufficient background in economics will normally be required to complete a "qualifying year" prior to admission to the M.A. program. All students normally enroll in Economics 504A and B, Mathematical and Statistical Methods for Economists. (504A and B are offered during Registration Week and during the first week of fall classes.) The Faculty of Graduate Studies and/or the Graduate Adviser may require any student to complete the Graduate Record Exams (G.R.E.), including the aptitude and subject area tests; students whose native language is not English must comply with Faculty of Graduate Studies requirements for competency in English (i.e., TOEFL may be required).

#### Program

The M.A. in Economics is a program requiring a minimum of 15 units which can be completed within 12 to 15 months from the date of entry. Specific program requirements are as follows:

1. Successful completion of the core program (6 units), consisting of 500, 501, 545, 555, and 570 (no credit).
2. Successful completion of an additional 4½ units of courses (exclusive of 504A/B) subject to the approval of the student's Supervisory Committee. Courses are normally chosen from the graduate course offerings of the Department, but may include up to three units of courses numbered at the 400 level as well as graduate courses in other departments. Students are encouraged to apply to individual instructors for Directed Studies (595) courses.
3. Successful completion of a formal thesis prospectus.
4. Successful completion of a Master's thesis. The thesis is awarded 4½ units.

#### Cooperative Option

The cooperative education option extends the regular program to include at least eight months of work in government or industry. The op-

tion provides a unique opportunity not only to 'learn and earn' but also to gain practical experience in applied economics. The work periods are an integral part of the student's program. Research undertaken during the work period may be used to provide the basis for the student's thesis.

#### Faculty and Major Areas of Research

Kenneth L. Avio, Ph.D. (Purdue)	Law and economics, economics of crime, price theory
Robert L. Bish, Ph.D. (Indiana)	Public choice theory, subnational government organization, coastal resources management
Robert V. Cherneff, Ph.D. (Washington)	Macroeconomic theory, money and banking
James Cutt, Ph.D. (Toronto)	Public finance, human resources policy, economic development and planning
A.R. Dobell, Ph.D. (M.I.T.)	Formation and evaluation of public policy, policy analysis
Donald G. Ferguson, Ph.D. (Toronto)	International trade, mathematical economics, comparative systems
J. Colin H. Jones, Ph.D. (Queen's)	Industrial organization, microeconomic theory
Leonard Laudadio, Ph.D. (Washington)	Microeconomic theory, environmental economics, industrial organization
James J. McRae, Ph.D. (Western Ontario)	Microeconomics, international trade, regional economics, transportation economics
Serge Nadeau, Ph.D. (Carnegie-Mellon)	Econometrics, microeconomics, public finance
Izzud-Din Pal, Ph.D. (McGill)	International trade, economic development, microeconomic theory
Malcolm Rutherford, Ph.D. (Durham)	History of economic thought, methodology, resource economics
Joseph Schaafsma, Ph.D. (Toronto)	Health economics, human resources, public finance
John A. Schofield, Ph.D. (Simon Fraser)	Regional economics, benefit/cost theory
Kenneth G. Stewart, Ph.D. (Michigan)	Econometrics, monetary theory
William D. Walsh, Ph.D. (Yale)	Labour economics
Gerald R. Walter, Ph.D. (California)	Urban economics, natural resources

## EDUCATION

### MASTER OF ARTS

The Faculty of Education offers programs leading to the Master of Arts degree in the following areas:

- Educational Psychology
  - Learning and Development
  - Measurement, Evaluation and Computer Applications in Education
  - Counselling Psychology in Education
  - Special Education
- Educational Administration
- Curriculum and Instruction
  - Language Arts: Elementary and Secondary
  - Mathematics
  - Music
  - Physical Education
  - Science
  - Social Studies

In addition to the usual admission requirements of the Faculty of Graduate Studies, individual departments may require relevant professional experience.

### MASTER OF EDUCATION

The Faculty also offers programs leading to the degree of Master of Education in the following areas:

- Art Education
- Curriculum Studies
- Educational Administration
- Language Arts: Elementary and Secondary
- Mathematics
- Music
- Physical Education
- School Counselling
- Science
- Secondary Reading
- Social Studies
- Special Education

The general regulations for this degree are as follows:

- (i) The Master of Education degree will require at least 18 units of course work, of which no more than six units may be at the 300 and 400 level. A comprehensive final examination (written and/or oral) will be required. A Project in research and/or curriculum development may be required as determined by the Faculty of Education.
- (ii) The usual admission requirements of the Faculty of Graduate Studies should be met and, in addition, applicants must have had at least two years of successful relevant professional experience. However, applicants who do not meet the normal admission requirements of the Faculty of Graduate Studies may be granted conditional admission to the M.Ed. program, provided the applicant:
  - (a) holds a recognized bachelor's degree
  - (b) has successful relevant professional experience for a minimum of five years as attested to by at least two supervisors of the applicant's work
  - (c) is recommended for admission by the Faculty of Education and approved by the Admissions Committee of the Faculty of Graduate Studies.

Formal admission to the M.Ed. program for conditionally admitted students will be granted to those who achieve a B (5.00 G.P.A.) average, with no grade less than a B- (4.00 G.P.A.) on the first nine units of work in the program.

### DOCTOR OF PHILOSOPHY

The Faculty also offers programs leading to the Ph.D. degree in Educational Psychology and Language Arts.

### ADMISSION DEADLINES

The Faculty of Education will observe the following deadlines for initial applications to all programs:

February 15:

For applicants seeking Scholarships and Fellowships. (In the event of enrollment limitations, preference will be given to applicants meeting this deadline.)

February 28:

For applicants seeking admission to the following Summer Studies.

April 30:

For applicants seeking admission in September to the following Winter Session.

October 15:

For applicants seeking admission in January of the current Winter Session. (Not all departments admit students in January.)

### Faculty and Areas of Research

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|---|--|
| Sheilah M. Allen, Ph.D.<br>(British Columbia) | Secondary reading, English education, teacher training   |
| Robert J. Anthony, Ph.D.<br>(Toronto)         | Developmental language arts; cross cultural education; applied linguistics   |
| Daniel G. Bachor, Ph.D.<br>(Toronto)          | Children with learning problems, instruction for exceptional children  |
| Laurie Rae Baxter, Ph.D.<br>(Ohio)            | Art education criticism, cross cultural aesthetics, arts administration and cultural policy                          |
| Robert D. Bell, Ph.D.<br>(Oregon)             | Secondary school physical education, athletic injuries, aging and physical activity                                  |
| I.K. Burbank, Ed.D.<br>(Utah State)           | Methodology in teaching Mathematics, curriculum development in elementary mathematics, measurement of math attitudes |
| Gerald A. Carr, Ph.D.<br>(Stellenbosch)       | Historical and comparative physical education, biochemical analysis - gymnastics and track and field                 |
| Rey A. Carr, Ph.D.<br>(California)            | Preventive counselling, communication skills, learning styles, peer counselling                                      |
| Franklin E. Churchley, Ed.D.<br>(Columbia)    | Music curriculum development: elementary and secondary, early childhood music, piano in music education              |
| Betty A. Collis, Ph.D.<br>(Victoria)          | Computer applications in education, measurement and evaluation, sex role stereotyping in education                   |
| Martin L. Collis, Ph.D.<br>(Stanford)         | Theory and practice of physical fitness and fitness testing, human response to hypothermia and exercise stress       |
| William K. Cross, Ed.D.<br>(Washington State) | Social studies methodology, teacher education  |
| David Docherty, Ph.D.<br>(Oregon)             | Motor development and maturation, acquisition of motor skills, curriculum development                                |
| Peter O. Evans, Ph.D.<br>(Alberta)            | The nature and development of language abilities, the development of word meaning, computers in education            |
| Thomas G. Fleming, Ph.D.<br>(Oregon)          | Social thought and education, historical study in administration.  |
| Robert H. Fowler, Ph.D.<br>(Duke)             | Social studies education (secondary), curriculum development and implementation                                      |
| M. Honore France, Ed.D.<br>(Massachusetts)    | Career and vocational counselling, cross cultural counselling, gerontology and counselling                           |
| Noel Gantly, Ed.D.<br>(B.Y.U.)                | Elementary music methodologies, developmental theory and research in music in early childhood                        |

- Betty Anne Hanley, Ph.D. (Minnesota) Foundations in music education, elementary music methods, choral music, Q methodology.
- W. John Harker, Ed.D. (British Columbia) Discourse processing from an educational perspective; contemporary literary theory and its implications for teaching English literature at the secondary and postsecondary levels; the semiotic study of educational events.
- C. Brian Harvey, Ph.D. (Ohio State) Helplessness in children and adolescents, manifest needs in counsellors, learning and development
- Geoffrey G. Hett, Ph.D. (Oregon) Teacher education, behavioural counselling, special education
- Geoffrey S. Hodder, M.A. (Victoria) Art curriculum, aesthetic judgmental process
- Christopher E. Hodgkinson, Ed.D. (British Columbia) Educational administration: values and organization, theory, philosophy of administration. Philosophy: values education, policy analysis, organizational analysis
- Bruce L. Howe, Ph.D. (Oregon) Sport psychology, curriculum development, children's play
- John J. Jackson, Ph.D. (Alberta) Educational administration; recreation administration; diffusion of innovations
- Terry D. Johnson, Ed.D. (British Columbia) Children's literature, psycholinguistic approaches to reading instruction, reading comprehension
- Donald W. Knowles, Ph.D. (Alberta) Developmental psychology, children's imaginative abilities, children's responses to life crises, gifted children
- Werner W. Liedtke, Ph.D. (Alberta) Elementary mathematics, early childhood education
- Yvonne M. Martin-Newcombe, Ph.D. (McGill) Organization theory, supervision and evaluation
- Margie I. Mayfield, Ph.D. (Minnesota) Early childhood education and language arts
- R. Dale McIntosh, Ph.D. (Washington) Choral and instrumental music, music history
- Norma I. Mickelson, Ph.D. (Washington) The nature and development of reading abilities, teacher education, computers in education
- Walter Muir, Ph.D. (Alberta) Learning, measurement, computer applications
- Peter J. Murphy, Ph.D. (Alberta) Organizational change and development, organizational theory, educational leadership, comparative and international education
- Antoinette A. Oberg, Ph.D. (Alberta) Curriculum theory, curriculum design, development and evaluation, naturalistic modes of inquiry
- Lloyd O. Ollila, Ph.D. (Minnesota) Early learning, developmental and remedial reading
- Arthur V. Olson, Ed.D. (Boston) Reading, developmental and administration/supervision of the reading program
- Joseph A. Parsons, Ph.D. (Illinois) Learning and studying, behaviour analysis, verbal behaviour, self control
- Leslie H. Peake, M.Sc. (Springfield) Elementary school physical education, motor performance of young children
- R. Vance Peavy, D.Ed. (Oregon) Human science and sociodynamic orientations in counselling theory and practice, qualitative and interpretive research methods
- Geoffrey D. Potter, Ph.D. (Sheffield) Educational technology
- Alison Preece, Ph.D. (Victoria) Language development; language play; early literacy; early childhood education
- George H. Steggles, M.A. (British Columbia) Design of teacher education programs, integration of art with other subject areas at the elementary level, audio visual teaching materials.
- Vernon J. Storey, Ed.D. (British Columbia) Leadership development, politics of education, organizational change.
- Paul F. Thomas, Ph.D. (Toronto) Geography methods, international development education, adult education, transpersonal, and depth psychology, qualitative, phenomenological and action research, metaphoric consciousness in relation to values education, quantitative methods for geography teachers, curriculum studies
- Beverly A. Timmons, D.Ed. (Oregon) Delayed auditory feedback, stuttering, analysis of speech
- Ronald E. Tinney, Ph.D. (Minnesota) Learning disabilities, relationships and communication skills
- Margaret M. Travis, D.Ed. (Oregon) Elementary art education
- H. David Turkington, Ed.D. (Washington State) Elementary and secondary school physical education, curriculum development
- Max R. Uhlemann, Ph.D. (Colorado State) Competency based training of professional and paraprofessional counsellors, interviewing strategies, environmental assessment, stress in the classroom
- Geraldine H. Van Gyn, Ph.D. (Alberta) Motor learning and development, motor control, human movement
- James H. Vance, Ph.D. (Alberta) Mathematics education
- Howard A. Wenger, Ph.D. (Alberta) Physiology of sport and fitness
- Richard L. Williams, Ph.D. (Washington State) Elementary science, measurement and evaluation, metric education
- Larry D. Yore, Ph.D. (Minnesota) Science education, teacher supervision and evaluation
- William M. Zuk, Ph.D. (Oregon) Cross cultural, early childhood and art education

## ELECTRICAL AND COMPUTER ENGINEERING

### Programs

The Department offers programs of study in Electrical Engineering leading to the degrees of Master of Engineering (M.Eng.), Master of Applied Science (M.A.Sc.) and Doctor of Philosophy (Ph.D.).

The M.Eng. program consists of eighteen units of course work and must include the course ELEC 598, M.Eng. Project. The M.A.Sc. program consists of a minimum of nine units of course work plus a thesis of twelve units. The Ph.D. program includes a dissertation and a minimum of nine or eighteen units of courses, depending on whether the student is

admitted with a master's degree or is transferred to a Ph.D. program with a bachelor's degree.

Subject to the approval of the Department, and the appropriate Faculty regulations, a certain amount of the course work may consist of 400 level undergraduate courses taken in the Department of Electrical and Computer Engineering and graduate courses taken from other departments.

The Department participates in the Cooperative Education Program of the Faculty of Graduate Studies.

## Facilities

The Department is exceptionally well equipped and has excellent computer facilities which allow faculty and students to develop engineering software applications in communications and signal processing, CAD/CAM, VLSI circuit design and robotics and automatic control.

The MV10000, one of the ECLIPSE series of computers, was donated to the Faculty of Engineering by Data General (Canada). The system is equipped with a high resolution (1024×1024×8) colour graphics terminal dedicated to VLSI design and computer graphics. The system is running native UNIX System V with Berkeley 4.2 enhancements.

The MV4000 32 bit computer serves the computer aided design required for the CAD/CAM laboratory and the engineering graphics laboratory. It includes a high resolution (1024×1024×8) colour graphics terminal and several high resolution Tektronix terminals for engineering graphics. The CAD/CAM laboratory includes an E size CalComp drum plotter.

The Department has several Sun Microsystems workstations interconnected by LANS, an HP200 Series Colour Computer System and a Charles River Data System. A Victor VM-5 Vertical Machining Centre forms the foundation of the CAD/CAM facility. The Department also has a Metheus VLSI design workstation complete with an HP 7850 plotter and a VLSI test station. The Department laboratories are well equipped with state of the art measuring equipment, such as network, spectrum, logic and parameter analyzers, pulse and function generators, oscilloscopes and other equipment.

## Applications

Initial inquiries regarding graduate studies in Electrical Engineering should be addressed to the Graduate Adviser, Department of Electrical and Computer Engineering. Application forms may be obtained from the Graduate Admissions and Records office.

## Faculty and Research Interests

Panajotis Agathoklis, Dr.Sc.Tech. (E.T.H., Zurich)	Control systems; image processing
Andreas Antoniou, Ph.D. (London)	Analog and digital filter design; digital signal processing; electronic circuits; optimization methods
Vijay K. Bhargava, Ph.D. (Queen's)	Digital communications; error-correcting codes
Ashoka K.S. Bhat, Ph.D. (Toronto)	Power electronics

Peter F. Driessen, Ph.D. (British Columbia)	Data communications, radio communications networks; computer communications; cellular radio
Fayez El Guibaly, Ph.D. (British Columbia)	VLSI system design; CAD for VLSI
R. Lynn Kirlin, Ph.D. (Utah State)	Digital signal processing; speech, image, seismic data; Karhunen-Loeve coding; adaptive filters; parameter estimation; noise suppression
Harry H.L. Kwok, Ph.D. (Stanford)	Semiconductor devices and IC design
Kin F. Li, Ph.D. (Concordia)	Computer simulation; multiprocessing systems; distributed operating systems; expert CAD systems
Warren D. Little, Ph.D. (British Columbia)	Microcomputer architecture and applications; microcomputer education
Wu-Sheng Lu, Ph.D. (Minnesota)	Synthesis and analysis of multidimensional digital filters; control aspects of robotics; system theory
Eric G. Manning, Ph.D. (Illinois)	Distributed computing networks
Ruediger Vahldieck, Dr.-Ing. (Bremen)	Microwave theory and techniques; CAD of integrated microwave and millimeter wave circuits; numerical methods in electromagnetics; optical and quasi-optical signal transmission systems
Adam Zielinski, Ph.D. (Wroclaw)	Underwater acoustic systems; acoustic communications and telemetry; ocean electronic instrumentation; signal acquisition and processing; electronic circuits

## ENGLISH

The Department of English offers the M.A. degree, in English, Canadian, American, and Commonwealth Literature. All candidates for the degree must meet all the general requirements of the University of Victoria Faculty of Graduate Studies as well as the specific requirements of the Department of English.

Although the Department is authorized to offer the Ph.D., applicants for this degree are not being accepted at the present time.

All applicants must have achieved *at least* a high second class standing (normally a B+ average) (6.00 G.P.A.) in the final two years of their undergraduate work. With a good Honours B.A., or a strong major in English, a full time student could normally expect to finish the M.A. within one calendar year. A part time student, or one who is required to make up course work at the undergraduate level, would normally need at least two years for completion of the degree. A total of at least 15 units of credit is required. Half year seminars carry 1½ units of credit. The thesis is valued at 7½ units. Proficiency in reading a language other than English must be demonstrated by means of a written test.

The Department offers two programs, of equal status, leading to the M.A. degree:

### 1. Thesis option

- (a) 5 courses (1½ units each), one of which is English 500 = 7½ units  
(b) thesis (7½ units) = 7½ units  
15 units

### 2. Nonthesis option

- (a) 8 courses (1½ units each) = 12 units  
(b) Comprehensive exam (English 598, 3 units) = 3 units  
15 units

The course of study for each individual M.A. candidate will be determined by the Director of English Graduate Studies in consultation with

the student and his supervisory committee. Transfer is possible from one program to the other, except in cases where a student has been asked to withdraw.

A departmental guide, *A Handbook for Graduate Students*, is available on request.

## Faculty and Areas of Interest

Lionel Adey, Ph.D. (Leicester)	19th century British literature
William Benzie, Ph.D. (Aberdeen)	18th century rhetoric, belles lettres
Edward I. Berry, Ph.D. (Calif., Berkeley)	Shakespeare, Renaissance literature
Michael R. Best, Ph.D. (Adelaide)	Renaissance drama and Shakespeare, Elizabethan popular culture
Thomas R. Cleary, Ph.D. (Princeton)	Restoration and 18th century literature
Evelyn M. Cobley, Ph.D. (British Columbia)	Literary theory, comparative literature, 20th century British and American fiction
Charles Doyle, Ph.D. (Auckland)	Modern poetry and poetics, Modernism
Anthony S.G. Edwards, Ph.D. (London)	15th and 16th century English literature and bibliography
Diane Edwards, Ph.D. (Princeton)	Renaissance literature, Anglo-Irish literature

Anthony B. England, Ph.D. (Yale)	Early 18th and early 19th century British literature	Constance M. Rooke, Ph.D. (North Carolina)	20th century American fiction, women in literature
Mel D. Faber, Ph.D. (Calif., Los Angeles)	Shakespeare, literature and psy- chology	Robert M. Schuler, Ph.D. (Colorado)	Renaissance 17th century English literature, relations between litera- ture and science
Bryan N.S. Gooch, Ph.D. (London)	17th and 18th century British lit- erature; relationship between po- etry and music	Stephen A.C. Scobie, Ph.D. (British Columbia)	Canadian literature, 20th century British literature, Scottish litera- ture, studies in the relationships between poetry and the other arts
Patrick J. Grant, D.Phil. (Sussex)	Renaissance literature	Terry G. Sherwood, Ph.D. (Calif., Berkeley)	Renaissance literature
John G. Hayman, Ph.D. (Northwestern)	18th and 19th century British lit- erature	Herbert F. Smith, Ph.D. (Rutgers)	19th century American literature
Anthony W. Jenkins, Ph.D. (Calif., Berkeley)	Late medieval literature, Modern drama	Nelson C. Smith, Ph.D. (Washington)	19th century British fiction, American and Canadian litera- ture, the novel
Kathryn Kerby-Fulton, M.Phil. (York, England)	Middle English; Medieval Latin religious writings; allegorical lit- erature	Henry E. Summerfield, M. Litt. (Durham)	18th and 20th century British lit- erature
Patricia Koster, Ph.D. (London)	Restoration and 18th century lit- erature	Reginald C. Terry, Ph.D. (London)	19th century British literature, Modern drama
Judith I. Mitchell, Ph.D. (Alberta)	Composition and technical writ- ing, 19th century British literature	David S. Thatcher, Ph.D. (Alberta)	Modern British literature
Victor A. Neufeldt, Ph.D. (Illinois)	19th century British literature	John J. Tucker, Ph.D. (Toronto)	Linguistics and critical theory, Modern and Medieval poetry
Colin J. Partridge, Ph.D. (Nottingham)	19th and 20th century American literature, Commonwealth litera- ture	Trevor L. Williams, Ph.D. (Wales)	James Joyce, theories of ideology, literature of war, 20th century lit- erature

## FRENCH LANGUAGE AND LITERATURE

(Not offered 1988-89)

The Department of French Language and Literature will consider applications for the M.A. program in French from

- (a) students having graduated with a B.A. (Major) in French;  
(b) students with equivalent qualifications.

The B.A. (Major) in French consists of a minimum of fifteen units of senior undergraduate course work in French, three of which are represented by 302 (advanced grammar and composition, introduction to stylistics) or its equivalent. Students who have not included 402 (advanced language course in modern French usage) or its equivalent in their Major must take this course in addition to the nine units of course work stipulated in (b) below. In general, students who wish to be admitted to the M.A. program will have obtained a minimum grade point average of 6.50 in the French courses numbered 302 and above, which formed the Major.

The M.A. program shall consist of a minimum of fifteen units of graduate credit:

- (a) a thesis in French of approximately twenty-five thousand words, worth six units of credit;  
(b) nine units of course work, three of which may be drawn from courses in French offered at the senior undergraduate level.

The thesis topic selected by the candidate must have the approval of both the supervisory committee and the M.A. committee of the French Department. This regulation also applies to any substantial change from

the approved topic which the candidate may wish to make in the course of the candidate's research.

Candidates are required to possess a reading knowledge of English. In addition, candidates must satisfy the Department that they have a working knowledge of another approved language, in addition to French and English.

### Faculty and Areas of Interest

Jeanne E. Adam, D. de IIIe cycle (Bordeaux)	French-North African literature
John C.E. Greene, D. de l'Univ. (Grenoble)	19th century French literature
Elaine Limbrick, D. de IIIe cycle (Poitiers)	Montaigne; 16th century French literature and history of ideas
Danielle Thaler, Ph.D. (Toronto)	19th century French literature, children's literature and problems of translation
Thuong Vuong-Riddick, D. de IIIe cycle (Paris-Sorbonne)	French-Canadian literature
Jennifer R. Waelti-Walters, Ph.D. (London)	Butor, Le Clézio, 20th century novel and women's writing

## GEOGRAPHY

The Department of Geography offers courses of study and research leading to M.A. and Ph.D. degrees. An M.Sc. degree is available by special arrangement. Individual programs may be arranged in economic, urban, resources, physical and regional geography with emphasis on Canada, especially Western Canada, and the Pacific Basin.

Admission to the Departmental graduate program is normally granted only to those students having honours or major degrees with first or second class standing in geography (at least a B average:— 6.00 G.P.A.). Students from the British Isles, for example, are expected to have obtained at least an upper second class honours degree. A promising student lacking such qualifications may be allowed to make up this deficiency, being required to register as an unclassified student.

### Program of Study

Acceptance into the graduate program requires attendance at formal courses and the presentation and defence of a thesis or dissertation. Nor-

mally 12 units of course work are required together with 15 units of thesis work to give a total of 27 units for the M.A. degree. The Department offers a flexible Ph.D. degree program based on a student's academic background and standing. Each student, however, will be required to complete a *minimum* of 14 units of graduate course credit and a dissertation assessed to a *minimum* of 24 units. Credit may, in some cases, be transferable from other graduate institutions; each case would be assessed individually. A student normally should expect to spend two years of academic work to obtain a Master's degree. Doctoral candidates are required to spend two years in attendance and normally complete the program in three years. All graduate students are required to complete Geography 500, 522, 523 and 526 as part of their program, and, in addition 4 units of upper level or graduate courses, only 2 units of which can be directed studies. If a student has successfully completed a core course topic as part of an earlier degree requirement that course should be replaced by another of equal unit value, the choice being made in consultation with the supervisory committee.

Inquiries concerning the graduate program may be addressed to the Graduate Studies Adviser, Department of Geography. Application forms for admission, which include the indication of need for financial assistance can be obtained directly from the Faculty of Graduate Studies. The attention of students is drawn to the departmental closing date for applications, March 31. Completed applications and supporting documents must be available for consideration by the Department on, or prior to, that date.

#### Coop Program

The Cooperative education program extends the regular program with work term(s) in government or industry. Research undertaken during the work term is intended to relate to the student's research interest area. The work periods are jointly supervised by the employer and the Department of Geography and treated as part of the student's program.

#### Faculty and Research Interests

Philip Dearden, Ph.D. (Victoria)	Recreation, resource analysis, conservation, tourism, Thailand
Michael C.R. Edgell, Ph.D. (Birmingham)	Physical: biogeography, landscape evaluation: Australia
Mark Flaherty, Ph.D. (McMaster)	Resources, economic land evaluation quantitative
Charles N. Forward, Ph.D. (Clark)	Urban: port functions, urban historical, Canada

Harold D. Foster, Ph.D.  
(London)

C. Peter Keller, Ph.D.  
(Western Ontario)

David C.-Y. Lai, Ph.D.  
(London)

Peter E. Murphy, Ph.D.  
(Ohio State)

J. Douglas Porteous, Ph.D.  
(Hull)

William M. Ross, Ph.D.  
(Washington)

Stanton E. Tuller, Ph.D.  
(Calif., Los Angeles)

Eileen Van der Flier-Keller, Ph.D.  
(Western)

Colin J.B. Wood, Ph.D.  
(McMaster)

Physical: applied geomorphology, hydrology, natural hazards, renewable energy

Cartography, computer cartography, spatial analysis, tourism and northern development

East Asia: Hong Kong, overseas Chinese, China, industrial, urban

Urban: community planning, tourist management, quantitative

Urban planning: behavioural, humanistic, Latin America

Resources: political, legal, coastal management, fisheries

Physical: climatology, heat balance, Japan

Physical, geomorphology, geochemistry, sedimentology coal resources

Resources: conflict resolution, economic, land

## GERMANIC STUDIES

#### Faculty and Areas of Interest

Angelika F. Arend, D.Phil.  
(Oxford)

Michael Hadley, Ph.D.  
(Queens)

Peter G. Liddell, Ph.D.  
(Brit. Col.)

Johannes Maczewski, Ph.D.  
(McGill)

Walter E. Riedel, Ph.D.  
(McGill)

Rodney T.K. Symington, Ph.D.  
(McGill)

Lyric poetry, early 19th century literature, contemporary aesthetics

18th century literature, enlightenment, naval history

Curriculum studies, G.D.R. literature: theory and prose, history of German language, Germans in B.C.

Drama and theatre, 18th and early 19th century literature, G.D.R. literature

20th century literature, German-Canadian literature, literary relations: Germany and Canada

Modern literature, Brecht, Doderer, literature in translation, German-Canadian literature

The Department of Germanic Studies offers a program of studies "by Special Arrangement" leading to the degree of Master of Arts. See page 211 for regulations on Programs by Special Arrangement.

All candidates for the degree must meet all the general requirements of the Faculty of Graduate Studies, as well as the specific requirements of the Department of Germanic Studies. Admission to the program normally requires a Bachelor's Degree (Major in German) with a minimum overall average of B+ (6.00 G.P.A.), or a Bachelor's Degree (Major in German) with a minimum average of A- (7.00 G.P.A.) in the final year's work.

The M.A. Program in Germanic Studies shall consist of a minimum of fifteen (15) units of graduate credit:

- at least nine units of course work, three of which may be drawn from courses in German at the senior undergraduate level, and
- a thesis, worth six units of credit (in exceptional circumstances, a candidate may be allowed to write a thesis of nine unit value); there will be a final oral examination of the thesis.

Candidates are required to possess a reading knowledge of English, and must satisfy the Department that they have a working knowledge of a language other than German and English.

#### Doctor of Philosophy (By Special Arrangement)

It is possible for outstanding students to complete a Ph.D. by special arrangement. The Faculty of Graduate Studies regulations for such programs are included on page 211 of the Calendar.

#### Master of Arts

The Department of History offers two programs leading to the M.A. degree by: (1) thesis option, and (2) nonthesis option. Subject to the admission requirements of the Faculty of Graduate Studies, admission to either program normally requires a Bachelor's degree with a minimum overall average of B+ (6.00 G.P.A.), or a Bachelor's degree with a minimum average of A- (7.00 G.P.A.) in the final year's work. A candidate with background deficiencies in history may be required to register for a year as a qualifying graduate student before being admitted to a degree program.

#### Thesis Option

A student electing the thesis option will write a thesis of approximately 50,000 words, and must successfully defend this thesis in an oral examination. During the student's first year in the program, progress in the thesis will be evaluated through history 598 (3), Thesis Tutorial, which will require either a research report or bibliographic essay, as determined by the supervisory committee. The student will also be required to complete a graduate seminar in historiography (History 500). Facilities are available for thesis work in Canadian history (particularly British Co-

lumbia, Western Canadian and Canadian military history), and limited topics in other areas, such as intellectual, diplomatic, British, and Western American history. The University's McPherson Library has holdings in excess of one million volumes, and graduate students may also be granted access to the Provincial Library and Archives, which include notable manuscript collections relating to western Canada and the northwestern United States.

#### Nonthesis Option

A student electing the nonthesis option will select two fields from the following areas: American History, Asian History, British History, Canadian History and European History. Alternatively, the two fields may be chosen thematically rather than geographically from such studies as intellectual, social, diplomatic, military, or urban history.

Two members of the Department, chosen in consultation with the Graduate Adviser, will constitute the student's "field committee" in each of two selected areas, and one of the two will serve as the supervisor in each field. Each field committee will draw up a bibliography of required readings, meet with the student periodically, and set a written field examination of three hours duration that will be graded by at least two members of the Department. Field committees will normally be established in September, and the student will write the examination in the following April.

The student will be required to meet with the field supervisor on a regular basis — at least once a month — during the winter session. Part

## HISTORY

time students may prepare one field per year but are reminded that they will be examined in both fields in the final oral examination. Students who obtain a 5.00 grade point average but who obtain less than B standing in History 500 may one time only repeat History 500.

The candidate will also be required to write an extended research paper of approximately 12,000 words. Normally this will be directed by one of the two field supervisors. The paper will be read and assessed by the supervisor giving the course and two other members of the Department.

The student's two field supervisors plus a member of the Graduate Faculty from outside the Department will comprise the student's Final Examining Committee. The outside member will be provided with copies of the required bibliographies in both fields, as well as a copy of the extended research paper. After completing all other requirements, the student will be orally examined in the student's competence in the chosen fields of history by the Final Examining Committee.

#### General

All candidates for the M.A. degree must demonstrate a reading knowledge of a second language acceptable to the Department in order to qualify for graduation. The level of proficiency expected will be equivalent to a B or better in the reading courses (such as French 290, German 390 or equivalent) offered by the respective language departments. Examinations will normally be of two hours duration and may be written with the aid of a dictionary. They will normally be administered three times a year — in September or October, March and July. New students are strongly urged to take their language examination in the fall, an examination usually scheduled for the first week of the term in order that, if necessary, students may enroll in a language course. Should a student fail a language examination, the Department may require that the student take formal language instruction in consultation with the Department supervising the exam before writing another examination.

NOTE: students will not be permitted to sit their oral examinations until they have satisfied this language requirement.

Students are normally admitted for study beginning in September and must complete all requirements by April 15 to graduate in May. Part time study is permitted, but the degree must be completed with five years of the initial registration.

Although there are no formal residence requirements, residence is recommended.

#### Faculty and Major Fields of Interest

Peter A. Baskerville, Ph.D. (Queen's) Business history; pre-Confederation

Kenneth S. Coates, Ph.D. (British Columbia)	Northern Canada; native-white relations; Western Canada
Ralph C. Croizier, Ph.D. (Calif., Berkeley)	Modern China, art history
Brian W. Dippie, Ph.D. (Texas)	Intellectual-cultural; 19th century U.S. American West
Elizabeth L. Ewan, Ph.D. (Edinburgh)	Medieval social history; women's studies; Scottish history
James E. Hendrickson, Ph.D. (Oregon)	British Columbia; American West
Sydney W. Jackman, Ph.D. (Harvard)	19th century Britain
G.R. Ian MacPherson, Ph.D. (Western Ontario)	Modern Canada; agrarian; cooperative history
Angus G. McLaren, Ph.D. (Harvard)	19th century European social history
John Money, Ph.D. (Cambridge)	18th century Britain
Patricia E. Roy, Ph.D. (British Columbia)	Modern Canada, British Columbia
Eric W. Sager, Ph.D. (British Columbia)	Atlantic Canada, social and economic history
Thomas J. Saunders, Ph.D. (Toronto)	Modern Germany; 20th century European culture-ideas
Donald L. Senese, Ph.D. (Harvard)	19th and 20th century Russia
Phyllis M. Senese, Ph.D. (York)	French Canada, women's studies, post-Confederation
E. Patricia Tsurumi, Ph.D. (Harvard)	Modern Japan, women's studies
Wesley T. Wooley, Ph.D. (Chicago)	U.S. diplomatic and political history, 20th century U.S.

## HISTORY IN ART

The Department of History in Art offers a program leading to the degree of Master of Arts. Although each application will be judged on its own merits, admission to the program is normally granted only to those students having honours or major degrees with first class standing in the history of art. In addition to the regular program, a cooperative education option is also available. Interested students should contact the Department's graduate adviser for further particulars.

The M.A. program is designed to be completed in two years. In their first year, students are required to complete 12 units of coursework, consisting of seven graduate seminars (1.5 units each), and the thesis tutorial (HA 595). The M.A. thesis (9 units) is the focus of the second year's work.

All students must fulfill the Department's second language requirement, and will not be permitted to sit their oral examination until this requirement has been satisfied.

#### Faculty and Research Interests

Alan Gowans, Ph.D. (Princeton) Architectural history; North American art and architecture; popular commercial arts; cross cultural history

Siri Gunasinghe, D.U. (Paris)	Buddhist and Hindu art and architecture of South and Southeast Asia; Indian painting
Kathlyn Liscomb, Ph.D. (Chicago)	Chinese art
John L. Osborne, Ph.D. (Courtauld Institute, London)	Early medieval Europe, classical tradition in western art
Martin J. Segger, M. Phil. (Warburg, London)	British Columbia architecture; conservation and museology; Renaissance/Baroque arts
Elizabeth Tumasonis, Ph.D. (California, Berkeley)	19th and 20th century art
S. Anthony Welch, Ph.D. (Harvard)	Iranian painting; architecture of Muslim India; Islamic art and architecture
Charles R. Wicke, Ph.D. (Arizona)	Pre-Columbian art; Latin-American art; cross cultural studies

## LINGUISTICS

The Department of Linguistics offers programs of study and research leading to the degrees of Doctor of Philosophy and Master of Arts in the following areas:

1. Theoretical Linguistics, especially as this applies to grammatical theory, phonological theory, experimental phonetics, psycholinguistics.
2. Applied Linguistics, especially as this applies to Canadian English, dialectology, lexicology, English for nonnative speakers, languages of

the Pacific Rim, and indigenous languages of the Northwest. Applicants to the Department of Linguistics should arrange to take the G.R.E. (Graduate Record Examination) and submit the results to the Faculty of Graduate Studies together with their application forms. Applicants whose native language is not English should consult the regulations concerning the Test of English as a Foreign Language (TOEFL) under Faculty of Graduate Studies regulation 1.1.

## MASTER OF ARTS

The Department offers two programs of equal status, leading to the M.A. degree: (1) course work and thesis, and (2) course work only. Admission to either program normally requires a Bachelor's degree with a minimum overall average of B+ in the final year's work. A candidate with insufficient preparation may be required to register for a year as an unclassified undergraduate student or spend a year as a qualifying graduate student before being admitted to a degree program. Ordinarily a student once accepted into an M.A. program can expect to take two years to complete it. For either option mentioned, a minimum of 24 units of credit will be required for completion; however, students lacking undergraduate credit in the core courses 410A, 410B and 410C, 440, and 441 may have up to three credits added to their course requirements. At the discretion of the Department, up to six units may be taken at the senior undergraduate level; where deemed appropriate, all or part of these may be taken in another department. Of these six units, only three from 410A, B, and C, 440 and 441 may be counted towards the basic 24 units, and only if they have not already been counted at the undergraduate level. All candidates are required to complete Linguistics 503, 505 and 527 (1½ units each). In order to qualify for graduation, all students must demonstrate a reading knowledge of, or fluency in, French or some other language acceptable to the Department. Students planning on continuing into a Ph.D. program are advised to complete 508 (Transformational Generative Grammar) and 510 (Phonology).

### Thesis Option

This program involves a minimum of 15 units of course work, including 581 (1½ units), plus 9 units of thesis (599). Additional units of undergraduate courses may be required, depending on the student's background.

### Nonthesis Option

A student electing the nonthesis option is required to take 24 units of course work, subject to the conditions detailed above. Additional units of undergraduate courses may be required, depending on the student's background. Students will enroll in 597 (Comprehensive Examination) and be orally examined at the conclusion of the program on their knowledge of the discipline of Linguistics. The oral will be based on at least two previous research papers or their equivalent, and may also include an examination of other aspects of the student's course of study.

## DOCTOR OF PHILOSOPHY

The Department also offers a program leading to the Ph.D. degree in Linguistics. The normal expectation is that a student entering the pro-

gram has an M.A. degree. All students are admitted on a provisional basis; the candidacy examination will be held upon satisfactory completion of a minimum of 9 units of 600 level courses as specified by the Department. An acceptable dissertation proposal is expected from the Linguistics 690 course. Students will normally sit for candidacy exams in April or December following their entry into a Ph.D. program. In the case of students planning field work in the second year of the program, however, provision can be made for them to take part of their candidacy exams after such field work. In any event, the candidacy exams must be completed within 24 months of entry into the program. Students are required to take 30 units of credit (including their dissertation) beyond the M.A. degree for a Ph.D. The minimum duration for a Ph.D. program is two calendar years, but in general such a program will take at least three years to complete. In order to qualify for graduation, all students must demonstrate a reading knowledge of, or fluency in, two languages other than English acceptable to the Department; one of these will normally be French.

Inquiries concerning the graduate program should be addressed to the Graduate Studies Adviser, Department of Linguistics. Application forms for admission can be obtained directly from the Faculty of Graduate Studies.

### Faculty and Areas of Interest

James Arthurs, Ph.D. (British Columbia)	Romance linguistics; syntax; stylistics
Barry F. Carlson, Ph.D. (Hawaii)	Wakashan, Salishan languages, phonology
John H. Esling, Ph.D. (Edinburgh)	Applied linguistics, acoustic phonetics
Barbara P. Harris, Ph.D. (University of Victoria)	Canadian English, English grammar, Chinook jargon
Thomas M. Hess, Ph.D. (Washington)	Western Canadian Indian languages; applied linguistics; pacific northwest mythology
Thomas E. Hukari, Ph.D. (Washington)	Grammatical theory, phonology, and Western Canadian Indian languages
Joseph F. Kess, Ph.D. (Hawaii)	Psycholinguistics, Austronesian languages; sociolinguistics
Geoffrey N. O'Grady, Ph.D. (Indiana)	Phonology; historical linguistics; Australian languages
Henry J. Warkentyne, Ph.D. (London)	Dialectology, applied linguistics, acoustic phonetics, and Japanese

## MATHEMATICS

The Department of Mathematics offers graduate programs leading to the degrees of Master of Arts and Master of Science in Pure Mathematics, Applied Mathematics, and Statistics.

Potential graduate students who wish to obtain a Master's degree in Mathematics will be required to satisfy the following requirements:

The student should normally have the equivalent of an honours degree in Mathematics in one of the emphasis areas as listed in the Mathematics entry for the Faculty of Arts and Science. A student without this background will be required to make up any deficiency. In so doing, the student is expected to obtain a grade of at least a B (5.00) in each such makeup course, and an average of at least B+ (6.00) overall in such makeup courses.

Each graduate student must, in addition, complete a program of study consisting of a minimum of 15 units, made up of either

- at least 12 units at the 500 level or higher, and the remainder at the 400 level or higher, or
- a thesis and 8 units at the 500 level or higher, and the remainder at the 400 level or higher.

It should be emphasized that this is a minimum requirement, and additional work may be required of individual students.

The graduate program leading to the Master of Science degree in Applied Mathematics also has an option in Industrial Mathematics. Students with a Bachelor's degree in Mathematics or a related field are eligible for the program and are required to complete a program of study consisting of two parts:

- at least 9 units of graduate study in Mathematics, including the Mathematics Seminar, and usually some courses in statistics, computing and mathematical modelling.

- a thesis, consisting of a substantial contribution to a problem from industry.

The thesis is the heart of the program. The Department has obtained suitable problems from industry, and the student will be expected to maintain contact with the organization from which the problem originated.

It is possible, under certain circumstances, with the approval of the Graduate Committee, for a student to take directed studies (Math 581) under the supervision of a faculty member.

The Department of Mathematics will normally accept appropriate courses from other departments for credit towards a graduate degree in Mathematics. Such courses will be selected in consultation with the student's supervisor.

A graduate student is governed by the Departmental regulations in force at the time of the student's initial graduate registration.

For each graduate student there shall be a Supervisory Committee of at least three members approved by the Faculty of Graduate Studies, one of whom shall be from outside the Department. The Committee shall recommend to the Department Chairman and then to the Faculty of Graduate Studies a program of studies. For a thesis candidate the Committee shall examine the thesis and conduct a final oral examination of the candidate on the thesis. For a nonthesis candidate the Committee shall conduct both a written and an oral examination of the candidate on the discipline. In both cases, the final oral will be chaired by the Dean of Graduate Studies or his nominee. The Committee may conduct other examinations. The Department Chairman and the Committee shall recommend to the Faculty of Graduate Studies that a degree be awarded to a successful candidate.

The student is responsible for becoming familiar with other regulations as outlined in the University Calendar and the Brochure of the Faculty of Graduate Studies.

#### Faculty and Fields of Research

Ernest J. Cockayne, Ph.D. (British Columbia)	Graph theory, combinatorics
Roger R. Davidson, Ph.D. (Florida State)	Statistics
Denton E. Hewgill, Ph.D. (British Columbia)	Partial differential equations
Albert Hurd, Ph.D. (Stanford)	Nonstandard analysis, dynamical systems, partial differential equations
Reinhard Illner, Ph.D. (Bonn)	Mathematical physics, partial differential equations, applied mathematics
Bruce R. Johnson, Ph.D. (Oregon)	Mathematical statistics, probability
David J. Leeming, Ph.D. (Alberta)	Approximation theory

Charles R. Miers, Ph.D. (Calif., Los Angeles)	Functional analysis
Donald J. Miller, Ph.D. (McMaster)	Algebra, graph theory
Gary G. Miller, Ph.D. (Missouri)	Topology
Robert E. Odeh, Ph.D. (Carnegie Institute of Technology)	Statistics
William E. Pfaffenberger, Ph.D. (Oregon)	Functional analysis, operator theory
William J. Reed, Ph.D. (British Columbia)	Statistics, mathematical bioeconomics
James Riddell, Ph.D. (Alberta)	Number theory
Ahmed R. Sourour, Ph.D. (Illinois)	Functional analysis, operator theory
Hari M. Srivastava, Ph.D. (Jodhpur)	Analysis, applied mathematics, mathematical physics
Pauline van den Driessche, Ph.D. (Wales)	Applied mathematics, differential equations

## MUSIC

All Master's programs in the School of Music require a minimum attendance of two winter sessions and at least 24 units of course credit, of which six units may be undergraduate courses at the 300 level or above.

### M.A. AND PH.D. IN MUSICOLOGY

#### Admission

Applicants are requested to send, along with official transcripts of previous college study, examples of their work in the field of music history, such as honours papers or Master's thesis, which will be returned.

#### Language requirement

M.A. A *good* reading knowledge of German and French is required *before* admission. Applicants with a reading knowledge of another foreign language may be accepted provisionally, but must demonstrate their proficiency in German and French to the School by December of their first year of graduate study at the University of Victoria. A reading knowledge of other foreign languages may be required if necessary to the applicant's intended field of specialization. Courses taken to fulfill this requirement are considered remedial, and units earned thereby will not be counted toward the course requirements.

Ph.D. Same requirements as above upon entering, but the student must also pass a reading examination in French and German before December of the second year of attendance.

A reading knowledge of other foreign languages may be required if necessary to the applicant's intended field of specialization.

#### Comprehensive examinations

Comprehensive examinations in Theory, History and Musicology may be taken in December or April of each year. Full time M.A. students are required to complete these to the School's satisfaction by the end of their first year in the program. Part time M.A. students will be advised during their first year in the program when they should expect to complete these examinations.

#### Ph.D. dissertation prospectus

A prospectus will be required for submission to the student's supervisory committee and should include (1) a description of the research situation in the chosen field of study, including detailed, specific references to existing published studies, their scope and limitations; (2) a precise statement of the research problem or problems upon which the dissertation is to focus, and a summary of the proposed plan of study; (3) a description of the state of the primary source materials and their immediate availability; and (4) as an appendix, a selected but comprehensive bibliography (preferably annotated) of *directly* relevant books and articles.

#### M.A. Thesis

The thesis should be completed during the last term of residence.

#### Ph.D. dissertation

This should be a significant contribution to original musicology research.

### M.A. IN MUSICOLOGY WITH PERFORMANCE

This program is intended for musicology students who are proficient performers and wish to continue serious study of their instrument while pursuing musicological research.

#### Admission

Applicants must submit the materials requested under "M.A. and Ph.D. in Musicology" above, and must arrange for an audition as described under "M.Mus. in Performance." A theory placement examination must be passed prior to admission to the program.

#### Language requirements

As specified under "M.A. and Ph.D. in Musicology."  
For further details regarding this program see the School of Music Graduate Handbook.

### \* M.MUS IN COMPOSITION

An applicant for admission to the M.Mus. program in Composition should send, at the earliest possible date, copies of scores and tapes of recent work, together with an official transcript of previous study and two letters of reference.

Upon admission, an individual course of study will be arranged, including private instruction in composition, and theoretical and historical studies. Opportunities are available to work in the School's well equipped electronic music studio and to take part in solo and ensemble performance.

Candidates for the degree will be required to complete an extensive original composition for instruments, voices, or mixed media. This work normally will be performed during the final year of graduate study.

### \* M.MUS. IN PERFORMANCE

It is preferable for applicants to visit the School for an interview and audition in their performance medium. When that is impractical, a high quality tape recording must suffice. This should be at least thirty minutes duration and present solo playing of two or more works in contrasting style. Acceptance via tape is always provisional pending audition in person upon arrival in September.

Acceptance for the M.Mus. in Performance requires specialization at advanced level in a specific performance medium (for example, trumpet, piano, voice). Further growth as a soloist and ensemble participant is a degree requirement, formal evidence of which is demonstrated through the candidate's degree recital.

The candidate's individual program is devised to accomplish this and to complement it with study in related areas, e.g., conducting, performance practices, composition, theory, music history, theatre, history in art, languages.

\* Students enrolled in a program leading to the M.Mus. degree in composition and performance are required to take an oral examination reflecting on the students' composition or repertoire respectively. For details, see the School of Music graduate handbook.

#### Faculty and Areas of Interest

John A. Celona, Ph.D. (Calif., San Diego)	Composition, theory
Jaroslav Karlovsky, Artist's Dip. (Academy of Musical Arts, Prague)	Viola, chamber music
William Kinderman, Ph.D. (Calif., Berkeley)	History, analysis and criticism of 19th century music, Beethoven's sketches and compositional process, later 19th century German tonal practice
Paul Kling, Artist's Diploma (Academy of Musical Arts, Prague)	Violin
Rudolf Komorous, Artist's Diploma (Academy of Musical Arts, Prague)	Composition, theory

Harald Krebs, Ph.D. (Yale)	Theory
Gordana Lazarevich, Ph.D. (Columbia)	Music history, musicology
Michael M. Longton, M.M. (Brit. Col.)	Theory, computer generated music
Bruce E. More, D.M.A. (Yale)	Theory, oral skills, choral conducting
Louis D. Ranger, B.Mus. (Juilliard)	Trumpet, brass chamber music
Erich Schwandt, Ph.D. (Stanford)	Music history, musicology
Bernard Turgeon (Opera School, Toronto Conservatory)	Voice and opera
Bruce Vogt, M.Mus. (Toronto)	Piano
Robin Wood, L.L.D. (University of Victoria)	Piano
Phillip T. Young, M.Mus. (Yale)	Musical instrument history

## PHILOSOPHY

(Not offered 1988-89)

The Department of Philosophy offers a two year program of graduate study leading to the degree of Master of Arts. At present this program is restricted to Contemporary Social and Political Thought. This is an interdisciplinary program for students in Philosophy, Political Science, or Sociology. It involves study of ideas and thinkers who are crucial to contemporary social and political thought, and who often defy disciplinary boundaries. The focal point of the program is an interdisciplinary seminar (CSPT 500) which involves the participation of members from the three departments.

To complete the program in philosophy, a student must

- (1) complete at least 9 units of course work, including
  - (a) at least 3 units of CSPT 500;
  - (b) PHIL 501A (1½) and 501B (1½) Issues in Social and Political Philosophy, and
  - (c) another 3 units of course work which may be made up by some combination of further work in CSPT 500, Directed Studies (PHIL 590), and approved senior undergraduate courses.
- (2) Write a thesis of 9 unit value.

The requirements for the program in the departments of Political Science and Sociology differ from those in Philosophy, and will be found under the calendar entries for those departments.

Admission to M.A. study in philosophy under the above program is restricted to students with a strong undergraduate degree in philosophy.

#### Faculty

Rodger G. Beehler, Ph.D. (Calgary)	Moral, legal, and political philosophy, philosophy of education.
Charles B. Daniels, D. Phil. (Oxford)	Philosophy of mind, ethics, aesthetics, ontology
Alan R. Drengson, Ph.D. (Oregon)	The British Empiricists, Kant, Eastern philosophy, moral psychology, philosophy and the environment
Jeffrey E. Foss, Ph.D. (Western Ontario)	Philosophy of science, philosophy of languages, philosophical psychology
Eike-Henner W. Kluge, Ph.D. (Michigan)	Medical ethics, medieval philosophy, metaphysics, theory of perception
Monika Langer, Ph.D. (Toronto)	European philosophy, existentialism, history of philosophy and social/political issues
John M. Michelsen, Ph.D. (Washington)	Greek philosophy, European philosophy since Kant, moral philosophy
Charles G. Morgan, (Ph.D) (Johns Hopkins)	Philosophy of science, logic

## PHYSICS and ASTRONOMY

The Department of Physics and Astronomy offers programs of study and research leading to the degrees of M.Sc. and Ph.D. The graduate courses offered are listed on pages 123 and 125.

Close contact is maintained with the Defence Research Establishment Pacific, the Dominion Astrophysical Observatory, the Dominion Radio Astrophysical Observatory, the Pacific Geoscience Centre, and the Institute of Ocean Sciences. The University of Victoria belongs to a consortium of universities which operates the meson facility TRIUMF.

The Climenhaga Observatory is an integral part of the Department, and major equipment associated with the Observatory includes an image processing system, a 0.5 metre telescope, an iris photometer, a microdensitometer, and a laboratory spectrograph.

A VAX 11-750 computer is located in the Department.

#### Cooperative Education Program

The Department participates in the Cooperative Education Program in the Faculty of Graduate Studies and by individual arrangement Physics graduate students may participate in a Cooperative Education program as described in the Faculty of Graduate Studies section of this calendar.

Further information may be obtained from the Chairman of the Physics and Astronomy Department Graduate Committee.

#### Astronomy and Astrophysics

Observational and theoretical studies which may be carried out in conjunction with the Dominion Astrophysical Observatory.

#### Condensed Matter Physics

NMR studies of molecular properties in solids and liquids.

#### Geophysics

Electromagnetic induction, geomagnetism, space physics, and palaeomagnetic studies in conjunction with the Pacific Geoscience Centre.

#### Nuclear and Particle Physics

Intermediate and high energy physics at TRIUMF and other accelerator facilities.

#### Physics of Fluids

Plasma studies, shock waves studies, and acoustic remote sensing in the ocean in conjunction with the Institute of Ocean Sciences.

**Theoretical Physics**

General relativity, nuclear and particle physics.

**Faculty and Major area of Research**

Alan Astbury, Ph.D. (Liverpool)	Experimental nuclear and particle physics	Donald E. Lobb, Ph.D. (Saskatchewan)	Beam transport systems and magnetic studies
George A. Beer, Ph.D. (Saskatchewan)	Experimental nuclear and particle physics	Grenville R. Mason, Ph.D. (Alberta)	Experimental nuclear and particle physics
J. Anthony Burke, Ph.D. (Harvard)	Astronomy and astrophysics	Howard E. Petch, Ph.D. (British Columbia)	Nuclear magnetic resonance in solids and liquids
Reginald M. Clements, Ph.D. (Saskatchewan)	Plasma studies	Charles E. Picciotto, Ph.D. (California)	Theoretical nuclear and particle physics
Fred. I. Cooperstock, Ph.D. (Brown)	General relativity and astrophysics	Christopher J. Pritchett, Ph.D. (Toronto)	Astronomy and astrophysics
John M. Dewey, Ph.D. (London)	Experimental gas dynamics	Lyle P. Robertson, Ph.D. (British Columbia)	Experimental nuclear and particle physics
Harry W. Dosso, Ph.D. (British Columbia)	Geomagnetism	Harbhajan S. Sandhu, Ph.D. (British Columbia)	Nuclear magnetic resonance in solids and liquids
Gerhart B. Friedmann, Ph.D. (British Columbia)	Biophysics	Colin D. Scarfe, Ph.D. (Cambridge)	Astronomy and astrophysics
F. David A. Hartwick, Ph.D. (Toronto)	Astronomy and astrophysics	Jeremy B. Tatum, Ph.D. (London)	Astronomy and astrophysics
Robert E. Horita, Ph.D. (British Columbia)	Geomagnetism and space physics	Don A. Vandenberg, Ph.D. (Australian National University)	Astronomy and astrophysics
Richard K. Keeler, Ph.D. (British Columbia)	Experimental nuclear and particle physics	Arthur Watton, Ph.D. (McMaster)	Nuclear magnetic resonance in solids and liquids
		John T. Weaver, Ph.D. (Saskatchewan)	Geomagnetism

**POLITICAL SCIENCE**

The Department of Political Science offers courses of study leading to the degree of Master of Arts. Candidates are required to complete 15 units, in accordance with the following program:

1. Required courses: All M.A. students are required to take the two core courses in Problems of Political Analysis (Political Science 505) and Approaches to Political Analysis (Political Science 506) in the first year of their program except that students enrolled in the Legislative Internship Program may complete 506 in their second year.
2. Optional courses: Regular M.A. students are required to complete 6 additional units of course work. Up to a total of 3 of these units may be taken either from undergraduate courses at the 300 or 400 level, directed reading courses (590) or from graduate courses offered by another Department. Students enrolled in the Legislative Internship Program may not include undergraduate courses for credit in their 15 unit requirement.
3. Legislative Internship Program: Students who have been accepted as M.A. candidates in this Department and who subsequently participate in the British Columbia Legislative Internship Program may obtain 3 units of credit upon completion of a comprehensive intern research report (580) for submission to an examination committee made up of two members of the Department.
4. Thesis: All students are required to submit a thesis worth 6 units of credit.
5. Length of program: Full time students will normally be expected to complete the M.A. degree within 24 months of their first registration.
6. Admission: The program is open to students with at least a B+ (6.00) average in their last two years of study leading to a degree.

**M.A. (Interdisciplinary) in Contemporary Social and Political Thought (CSPT):**

This program is open to selected students in Political Science, Philosophy and Sociology. Students must meet the core graduating requirements of the individual departments.

The Graduate Adviser in each department should be consulted for details. To complete the CSPT program in Political Science a student must complete the 15 units of requirements for an M.A. in Political Science (including a thesis for POLI 599 in the field of CSPT), plus at least 3 units of CSPT 500. The calendar entry under the Department of Philosophy on page 116 should also be consulted for descriptions of CSPT 500 and 590.

Admission to the program in CSPT is subject to the written approval of the Program Director. Applicants must already have been accepted for the MA program in Political Science.

The requirements for the program in the departments of Philosophy and Sociology differ from those in Political Science.

**Faculty and Current Research Interests**

C. Bennett, Ph.D. (Illinois)	Comparative politics and public policy (advanced industrial countries); American government and politics; information and communications policy
Howard L. Biddulph, Ph.D. (Indiana)	Policy making, political integration, regionalism, and dissent in the U.S.S.R. and Eastern Europe; Marxist-Leninist political thought
Anthony H. Birch, Ph.D. (London)	British politics and government; political integration and minority nationalist movements; theories of representation and democracy
Warren Magnusson, D.Phil. (Oxford)	The political theory of local government; liberal and Marxist theories of the state; comparative urban politics
J. Terence Morley, Ph.D. (Queen's)	English-Canadian political culture; British Columbia pressure groups; political parties in the Canadian provinces; trade union organization and behaviour; government of the legal profession in Canada; non-Marxist socialist thought; the political role of religious denominations in the Canadian state
Patrick G. Nixon, Ph.D. (Western Ontario)	The policy making process; the role of the public service in managing the modern state; the public service as "new class"
Richard J. Powers, Ph.D. (Claremont)	International politics and international relations theory; international law and international organization; comparative foreign policy

Norman J. Ruff, Ph.D.  
(McGill)

B.C. provincial politics; policy formation and public administration; public sector personnel and financial management; Canadian federalism and intergovernmental relations

Robert B.J. Walker, Ph.D.  
(Queen's)

Contemporary political and social thought; theories of ideology and

R. Jeremy Wilson, Ph.D.  
(British Columbia)

culture; philosophy of social science; international political theory; concepts of space and time in political thought

British Columbia politics and government; environmental and natural resources policy; elections and public opinion

## PSYCHOLOGY

The Department of Psychology offers programs leading to the degrees of Master of Arts, Master of Science and Doctor of Philosophy.

Training leading to the Ph.D. degree is offered in Human Neuropsychology, Lifespan Development and Aging, Behavioural Neuroscience, as well as in various areas of Experimental and Social Psychology.

A Clinical Neuropsychology training program is also offered. This program provides a background in basic neuropsychology as well as clinical neuropsychological assessment, intervention and research. Students not enrolled in this program will only be allowed access to clinical neuropsychological training under exceptional circumstances. Students within the Clinical Neuropsychological training program will be confirmed as eligible to pursue clinical training on an annual basis. This will be based on an evaluation of the academic progress and clinical aptitude of these students made by the Neuropsychology faculty at the end of each academic year. The Clinical Neuropsychology training program, in addition to requirements of the Neuropsychology program also require that the student obtain a one year predoctoral internship. This is the only clinical program offered in the Department.

### Program Requirements

*Undergraduate Competence:* All regular incoming graduate students must without exception fulfill this requirement, ordinarily in their first year of study. The undergraduate competence requirement is designed to assure that all first year students will have had at least a basic exposure to major areas of psychology. At the present time, students will have satisfied the requirement if they have in the past, or will have after their first year of graduate studies, been credited with the equivalent of those courses currently required in the third and fourth year programs of this Department's own undergraduate honours students with the exception of the honours thesis.

*Thesis:* A thesis is a requirement in all degree programs.

In addition to the above requirements, and unit requirements set by the Faculty of Graduate Studies, students must satisfy a methodology requirement involving 400 and 500 level courses in statistics and methods, and, in the case of Master's students, participate in their first year in a Research Apprenticeship which is generally overseen by the student's supervisor. Other departmental requirements are specific to particular programs or supervisors. A Master's degree involves a minimum of one year of full time study, while the Ph.D involves a minimum of two additional years, at least one of which must be as a full time student.

Requests for information on graduate program and application procedures, as well as application forms for admission and financial support, may be obtained from the Faculty of Graduate Studies. Specific inquiries may be addressed to the Director of Graduate Admissions, Department of Psychology.

### Faculty and Major Areas of Research

Loren Acker, Ph.D.  
(Calif., Los Angeles)

Child behavioural development; behaviour modification; general behaviour analysis

Janet Beavin Bavelas, Ph.D.  
(Stanford)

Social interaction; verbal and nonverbal communication; methodology

Michael E. Corcoran, Ph.D.  
(McGill)

Neuropsychopharmacology; neurobiology

Louis D. Costa, Ph.D.  
(Teacher's College, New York)

Human neuropsychology and clinical psychology

Pam Duncan, Ph.D.  
(Wisconsin)

Clinical; developmental psychology

Robert D. Gifford, Ph.D.  
(Simon Fraser)

Environmental; social-personality

Bram Goldwater, Ph.D.  
(Bowling Green)

Human psychophysiology; conditioning

Roger E. Graves, Ph.D.  
(Massachusetts Institute of Technology)

Human neuropsychology; clinical and experimental

Ronald Hoppe, Ph.D.  
(Michigan State)

Psycholinguistics; social facilitation

David F. Hultsch, Ph.D.  
(Syracuse)

Life-span development and aging; memory and cognition; stress and adaptation

Michael Hunter, Ph.D.  
(Simon Fraser)

Developmental psychology; statistics and research design

Michael E.J. Masson, Ph.D.  
(Colorado)

Cognitive psychology; natural language processing

Richard B. May, Ph.D.  
(Claremont)

Learning; memory; cognitive development

G. Alexander Milton, Ph.D.  
(Stanford)

Socialization; social development

Clare K. Porac, Ph.D.  
(New School for Social Research)

Visual perception; cognitive processes

Donald E. Read, Ph.D.  
(McGill)

Human neuropsychology; language comprehension; memory; cognitive rehabilitation

Lorne Rosenblood, Ph.D.  
(Ohio State)

Attitude theories; social affiliation research design

Ronald W. Skelton, Ph.D.  
(British Columbia)

Neurophysiology; learning and memory

Frank Spellacy, Ph.D.  
(Victoria)

Human neuropsychology; clinical psychology

Otfried Spreen, Ph.D.  
(Friburg)

Human neuropsychology; developmental and language disorders; auditory perception

Esther H. Strauss, Ph.D.  
(Toronto)

Neuropsychology; developmental psychology

Charles Tolman, Ph.D.  
(Washington)

Experimental psychology; theory and methods

## PUBLIC ADMINISTRATION

### MASTER OF PUBLIC ADMINISTRATION PROGRAM

The School of Public Administration offers both full time and part time programs of studies leading to the degree of Master of Public Administration (M.P.A.). The multidisciplinary program is intended for practising or prospective manager who wish to acquire, or update, the skills necessary for effective and responsible public sector management and policy analysis.

### Admission

Candidates will have a four year baccalaureate degree from a recognized university, or equivalent qualifications, with an academic standing acceptable to the School and the Faculty of Graduate Studies. In general, this would mean a very high second class standing or better in the final two years of the undergraduate degree. In exceptional cases the School, with the agreement of the Dean of the Faculty of Graduate Studies, may waive this requirement on the presentation of other evidence.

such as substantial professional experience, which indicates that the candidate will complete the program successfully.

Because the M.P.A. program is open to students from a broad range of disciplines, the School anticipates applications from persons with widely varied undergraduate backgrounds. Although there is no formal requirement with respect to the specific nature of undergraduate courses, makeup course work may be required where lack of an adequate background is judged to be a handicap for the student. In particular, mastery of high school mathematics (at the level of the University of Victoria noncredit course Mathematics 012 or Algebra 12) is essential.

In particular, a grade of 'B' or better within the past 10 years is required in Math 012 and Economics 201 or equivalents; challenge exams are offered by the School to those admitted without sufficient relevant documentation.

If the candidate has neither passed the courses nor the challenge examinations, Math 012 and Economics 201, or their equivalents, must be taken during a prescribed period; but they cannot be counted for credits toward the M.P.A. degree.

Applicants are encouraged to submit whatever other evidence of suitability for admission they feel is relevant. This could include the Graduate Management Admission Test, the Graduate Record Examination, academic records from nondegree courses, a professional résumé and TOEFL (for students whose first language is not English).

A supplementary page should be used to describe the relevance of prior work experience and the reason for seeking an M.P.A. degree. Often an interview is arranged with the Graduate Adviser or designate.

Students completing an undergraduate degree in preparation for entry to the M.P.A. program, or otherwise taking upper level undergraduate courses to strengthen their application, are urged to consult the School for advice concerning an appropriate program of study.

## PROGRAM OF STUDIES

Upon admission, each student will meet with the Graduate Adviser or designate to establish a program of study to meet the M.P.A. degree requirements. After being approved by the Dean of Graduate Studies, this study plan provides the basis for granting the degree, following satisfactory completion of the courses within the stipulated time limit.

The regular degree program consists of 30 units, including 13½ units of foundation courses numbered 500-516, 10½ units of electives numbered 521 and above, followed by 519, 520 and 598 (6 units). Entering students who possess a directly relevant academic background or who pass an appropriate challenge exam or who possess appropriate senior administrative experience may be granted advanced standing in designated courses numbered 500 to 516. Individual programs of study may differ widely, but in no case will the M.P.A. degree be awarded on the basis of fewer than 18 units of study (including the report requirement) accepted for graduate credit at the University of Victoria.

Students with at least ten years of work experience in positions carrying substantial administrative or management responsibilities may be accepted in the mid career program and receive advanced standing for up to 12 units of academic work within the normal degree requirement of 30 units.

A full time student with little relevant academic or work experience, who is not involved in the Cooperative Education option, will normally need 20 months to complete the requirements for the degree. One who is extremely well prepared academically or has substantial relevant work experience may require only 12 months of full time study. The program also may be undertaken on a part time basis. Transfer to full time status, and vice versa, is automatically available after the first term of study in the M.P.A. program.

### The Report Requirement (Administration 598):

The report is expected to be a substantial analysis of a significant policy issue or management problem. It is to be prepared individually by the student in consultation with an adviser, who shall be a member of the School faculty. The adviser will review the first draft, and approve a final version for submission to the Oral Examination Committee which will include the adviser, another member of the School faculty, a member of the Faculty of Graduate Studies from outside the School, and at least one professional administrator.

### Performance Requirements:

See page 214, Academic Standards.

### Cooperative Education:

The Cooperative Education option within the M.P.A. program provides an opportunity for Public Administration students to obtain relevant work experience while completing their degree requirements. Students who successfully complete three Work Terms and satisfy the

academic requirements of the M.P.A. degree program offered by the School of Public Administration will receive a notation to this effect on their transcripts at graduation. Prior work experience is not accepted for work term credit.

Applications for admission to the Cooperative Program should be submitted not later than the end of the second week of the student's first term in the M.P.A. program. Decisions on admission are normally made by the fifth week of classes. The Cooperative Education option is only available to full time students; part time students may apply for admission on the understanding that they will be required to change to full time status for the remainder of their program.

### Language Skills:

Students are strongly recommended to maintain or improve their fluency in French while in the program. A successful public service career in Canada is increasingly dependent on an ability to function in Canada's two official languages.

## GRADUATE COURSES AND REQUIREMENTS

The program of studies leading to the M.P.A. degree has been arranged in four course blocks to facilitate learning and program planning.

**Course Block 1** Foundation Courses

**Course Block 2** Key Electives

**Course Block 3** Other Elective Seminars

**Course Block 4** Required Seminars and Management Report

Students are normally expected to complete all Block 1 courses before proceeding further as groupings of these courses are prerequisites for courses in Blocks 2, 3 and 4. Students are also encouraged to read carefully the detailed descriptions of courses in the upper blocks, to ensure that they have acquired the specific prerequisites for their desired program of study.

### Course Block 1

500 Quantitative Analysis I

501 Quantitative Analysis II

503 Economic Methods in Policy Analysis

504 Political Analysis

507 Management and Organizational Behaviour

510 Law and Administration

512 Introduction to Accounting and Financial Management in the Public Sector

514 Research Methods

516 Written Communications

Admn 500 through 516 have graduate course credit only for M.P.A. students

### Course Block 2

These courses are offered on a regularly scheduled basis by the School of Public Administration. The following courses provide essential material for management and policy analysis.

524 Information Systems Management

531 Personnel Management

537 Program Evaluation

540 Public Sector Budgeting, Accounting and Financial Management

544 Cost Benefit Analysis

578 Advanced Methods of Analysis

### Course Block 3

These courses are offered subject to student demand and faculty availability.

522 Seminar on Public Transportation Issues

523 Contemporary Topics in Administration

525 Labour Relations and Collective Bargaining

526 Information Technology and Management

527 Decision and Risk Analysis

528 Project Management

529 Organizational Development

530 Organizational Theory and Job Design

532 The Management of Change

533 Public Sector Marketing and Policy Implementation

535 Regulation and Competition Policy

541 Management Control, Auditing, Privacy and Security in the Public Sector

542 Cost Accounting in the Public Sector

545 Local Government Organization, Operation and Finance

546 Issues in Management of Local Government

549 Processes and Problems in the Formation of Economic Policy

- 551 Administrative Law  
 556 Machinery of Government  
 563 Aspects of Research Design  
 564 Seminar on Social Policy Issues  
 575 Coastal Resource Use, Law & Management  
 577 Strategic Planning Seminar

#### Course Block 4

These courses are required and should be taken near the end of the student's program.

- 519 Seminar in Responsible Administrative Behaviour  
 520 Management and Policy Seminar  
 598 Report Requirement

#### Faculty and Areas of Interest

- Robert L. Bish, Ph.D.  
(Indiana) Local government, coastal resource management, theories of public choice
- Frank Cassidy, Ph.D.  
(Stanford) Indian self government and land claims, public sector management, administrative ethics, adult education and public policy
- Ronald I. Cheffins, LL.M.  
(Brit. Col.) Canadian Public Law, Canadian politics and government
- J. Barton Cunningham, Ph.D.  
(Southern California) Quality of working life, organizational theory, decision making, stress and motivation entrepreneurship
- James Cutt, Ph.D.  
(Toronto) Public sector finance and accounting, evaluation of public policy
- Ralph Huenemann, Ph.D.  
(Harvard) Cost benefit analysis, development policy and administration, comparative economic systems, transportation economics, international trade policy

- Thomas A. Lambe, Ph.D.  
(Stanford) Application of quantitative methods, with particular regard to urban transportation systems
- John Langford, Ph.D.  
(McGill) Canadian politics and government, machinery of government, administrative ethics
- Eric S. Lee, Ph.D.  
(Victoria) Management information systems, office automation, organizational theory
- James N. MacGregor, Ph.D.  
(Victoria) Organizational behaviour, human information processing
- James C. McDavid, Ph.D.  
(Indiana) Urban administration, program evaluation, statistical methods
- James J. McRae, Ph.D.  
(Western Ontario) Economic analysis of public policy, regulation and transportation policy
- Michael J. Prince, Ph.D.  
(Exeter) Social policy formulation and implementation, retirement income security, theories of the welfare state, administrative politics of policy analysis
- Denis J. Protti, M.Sc.  
(Manitoba) Management information systems, health information systems, health care costing, security and confidentiality of information
- Thomas K. Shoyama B.A.,  
B. Comm, LL.D.  
(Brit. Col.) Federal Provincial Relations
- Hartmut J. Will, Ph.D.  
(Illinois) Accounting, auditing, control, expert, management information, and security systems

## SOCIOLOGY

The program leading to the Master of Arts degree in sociology, while containing a core of theory, research methods, quantitative techniques and participation in the departmental seminar, is designed to provide flexibility for students as well as to reflect the diversity which characterizes the discipline. Individual programs beyond the core are designed to fit students' interests and to supplement areas in which they may require additional work, insofar as faculty resources and specializations permit.

#### 1. Program of Studies

##### Undergraduate Competence:

Preference will be given to students with a B+ (6.00) average or better. All incoming graduate students must fulfill the requirements expected of undergraduate Honours students in this Department (i.e., SOCI 302, 371, 375, 402 and 471, or their equivalencies).

##### Graduate Course Work and Thesis:

All students are required to complete a minimum of 15 units of prescribed Calendar listings, of which at least 12 units must be drawn from Sociology listings in the Calendar and of which at least 12 units must be at the graduate level. All students must write a thesis and may receive a maximum of 3 units credit for the thesis. Students are required to demonstrate competence in sociological theory (SOCI 500), the methodology of sociological research design (511) and data analysis, as well as quantitative/statistical techniques (510). Ordinarily such competence shall be demonstrated by successful course completion; however, the abilities and prior performances of entering students shall be considered in the planning of their programs – both in terms of particular courses and the unit values required. In addition, students are required to enroll in a Departmental seminar (505) as part of their degree program.

Other listings are designed to facilitate the range of interests displayed by traditional and contemporary sociological inquiry (530, 535, and 590). These may capitalize on the University's computer facilities; the Library's Human Relations Area Files holdings; and the British Columbia Provincial Archives. The range of such interests is illustrated by the current area of interests declared by the sociology faculty (see below).

#### 2. Length of Program

The department expects full time students to spend two years completing the Master's degree, although it is possible for outstanding students to complete the degree in twelve months.

#### M.A. (Interdisciplinary) in Contemporary Social & Political Thought (CSPT):

This program is open to selected students in Sociology, Philosophy and Political Science. Students must meet the core graduating requirements of the individual departments.

The Graduate Adviser in each department should be consulted for details. To complete the CSPT program in Sociology a student must complete the 15 units of requirements for an M.A. in Sociology (including a thesis for SOCI 599 in the field of CSPT), plus at least 3 units of CSPT 500. The calendar entry under the Department of Philosophy on page 116 should also be consulted for descriptions of CSPT 500 and 590.

Admission to the program in CSPT is subject to the written approval of the Program Director. Applicants must already have been accepted for the M.A. program in Sociology.

The requirements for the program in the departments of Philosophy and Political Science differ from those in Sociology.

#### Faculty and Current Areas of Interest

- Paul M. Baker, Ph.D.  
(Minnesota) Social gerontology, small group dynamics, data analysis, social psychology
- William K. Carroll, Ph.D.  
(York) Political economy, social movements; class, gender and ideology
- Mary J. Gallant, Ph.D.  
(Minnesota) Theory, symbolic interaction, community, feminist perspectives
- C. David Gartrell, Ph.D.  
(Harvard) Theory, social psychology, methods and statistics

Robert Hagedorn, Ph.D. (Texas)	Occupations/professions, complex organizations, social psychology	Jean E. Veevers, Ph.D. (Toronto)	Family, demography, sex roles
R. Alan Hedley, Ph.D. (Oregon)	Work, industrialization, comparative sociology, research methods	T. Rennie Warburton, Ph.D. (London)	Religion, class relations and ideology, ethnic relations
Daniel J. Koenig, Ph.D. (Illinois)	Criminology/deviance, demography, methods, social control	Roy E.L. Watson, Ph.D. (Toronto)	Welfare Institutions, occupations/professions, complex organizations
Richard Ogmundson, Ph.D. (Michigan)	Political, stratification, Canadian society	Stephen D. Webb, Ph.D. (Tennessee)	Deviance, medical, urban, research methods

## THEATRE

### I. Programs in Graduate Studies

The Department offers five programs in graduate studies:

- M.A. in Theatre History
- M.A. in Theatre in Education
- M.F.A. in Directing/Production
- M.F.A. in Design/Production

Well qualified applicants may be admitted to a program leading to a Ph.D. in Theatre History by Special Arrangement.

2. Applicants for admission to any of the above programs must send a letter to the Theatre Department Graduate Adviser with a statement of purpose, a detailed resume of their educational background, theatre experience, and teaching experience if applicable.
3. Participation in Production  
All graduate students will be expected to work in Department productions. Areas of activity will be assigned by the graduate faculty in consultation with the student.
4. Faculty Supervisors  
Each student will be assigned a faculty supervisor who will assist the student in the development of the thesis or practicum.

### MASTER OF ARTS

All candidates are required to complete a minimum of 12 units of graduate course work (as described in the separate entries below) and a thesis of 6 units. The residence requirement is one year.

#### M.A. in Theatre History: Requirements

- (a) A knowledge at the B.F.A. level of Theatre History, Directing and Design.
- (b) 6 units – Theatre History (other than Theatre 516)
- (c) 3 units – to be chosen from the graduate areas of Theatre-in-Education, Design or Directing
- (d) 3 units – to be chosen from a related discipline, to be approved by the Graduate Adviser
- (e) 6 units – Theatre 599, M.A. Thesis. The candidate will submit his thesis and orally defend it as part of the requirements of the Faculty of Graduate Studies.

NOTE: A candidate may apply to transfer to the Ph.D. program by Special Arrangement after one year of study. If the application is granted, the complete year of courses and residence will be applied to the requirements for the Ph.D.

#### M.A. in Theatre-in-Education: Requirements

- (a) A knowledge at the B.F.A. level of Theatre History, Directing and Design.
- (b) Practical teaching experience.
- (c) 6 units – Theatre 506 and 507.
- (d) 3 units – To be chosen from the graduate areas of Theatre History, Design or Directing.
- (e) 3 units – To be chosen from a related discipline, to be approved by the Graduate Adviser.
- (f) 6 units – Theatre 599, M.A. Thesis. The candidate will submit his thesis and orally defend it as part of the requirements of the Faculty of Graduate Studies.

### MASTER OF FINE ARTS

The programs normally require a minimum of two years in residence. Applicants must have practical theatre experience and normally, prior to admission, will be required to take a diagnostic examination. Any deficiencies will represent additional requirements for the student and must be eliminated before the student may enroll in the graduate level courses

in that area. All admissions are conditional on the diagnostic examination.

Candidates are required to write comprehensive examinations before proceeding to the practicum. Details are provided in the Department Handbook.

#### M.F.A. in Directing/Production: Requirements

- (a) A knowledge at the B.F.A. level of Lighting, Costume and Scene Design, Theatre History and Directing. The student's knowledge will be assessed by the diagnostic examination (see above).
- (b) 6 units – Directing and Advanced Directing (other than 515).
- (c) 3 units – either Lighting, Costume or Scene Design (other than 514).
- (d) 3 units – Theatre History.
- (e) A written comprehensive examination must be passed no later than the spring term of the second year and prior to commencing work on the practicum production. The comprehensive examination will emphasize the practical areas of the theatre but will include Theatre History. This examination will be given in two parts over a two day period and will be approximately four hours for each part.
- (f) 6 units – Theatre 598, M.F.A. Practicum
  - (i) A full length production to be decided upon in consultation with the student's supervisor and the Department's graduate faculty.
  - (ii) An oral defense of the practicum production is part of the requirements of the Faculty of Graduate Studies.

#### M.F.A. in Design/Production: Requirements

- (a) A knowledge at the undergraduate level of Lighting, Costume and Scene Design, and a general understanding of Theatre History, Directing and Art History. The student's knowledge will be assessed by the diagnostic examination (see above).
- (b) 12 units – Four courses in theatre design/production other than Theatre 514.
- (c) 3 units – To be chosen from Theatre or a related discipline, to be approved by the Supervisor.
- (d) M.F.A. Design candidates will be given the opportunity to design mainstage productions.
- (e) A written comprehensive examination must be passed no later than the spring term of the second year and prior to commencing work on the practicum production. This examination will be given in two parts over a two day period and will be approximately four hours for each part.
- (f) 6 units – Theatre 598, M.F.A. Practicum
  - (i) The nature of the practicum will be determined in consultation with the student's supervisor and the Department's graduate faculty.
  - (ii) An oral defense of the practicum production is part of the requirements of the Faculty of Graduate Studies.

### DOCTOR OF PHILOSOPHY

Ph.D. in Theatre History by special arrangement with the Department. Applicants should apply directly to the Department, and depending on the area of research selected may be permitted to work on a Ph.D. by special arrangement.

#### Faculty and Major Fields of Interest

Michael R. Booth, Ph.D. (London)	19th and 20th century British theatre, experimental theatre
Linda Hardy, M.A. (Toronto)	Acting; theories of acting; 19th century British theatre; Elizabethan theatre, modern Shakespearean performance and production

William E. Heslop, M.F.A. (Alberta)	Stage design (scenic, costumes and lighting); Canadian theatre; experimental theatre; visual history of theatre	John Krich, M.F.A. (Yale)	Acting, directing, popular entertainment (circus, carnival, hippo-drama)
Giles W. Hogg, Ph.D. (Northwestern)	Lighting design, directing, children's theatre, creative dramatics	Harvey M. Miller, Ph.D. (Pittsburgh)	Directing, acting, Elizabethan theatre production, the American theatre
Alan Hughes, Ph.D. (Birmingham)	18th and 19th century British theatre, Shakespeare in performance, Elizabethan theatre, Greek theatre, directing (particularly period plays)	Irene Pieper, M.A. (San Francisco State)	The history of costume, ethnic costume; costume design, theatrical make up
		Juliana M. Saxton, B.A. (Toronto)	Drama in education, theatre in education, production, promotion, administration and tour management

## VISUAL ARTS

The Department of Visual Arts offers a program leading to the degree of Master of Fine Arts.

The normal length of time for the completion of the M.F.A. is two years of full time study, although a student may be advised, or permitted upon Departmental recommendation, to delay the final exhibition for a period of not more than twelve months.

Acceptance in the M.F.A. in Visual Arts is conditional upon submission of an extensive folio of work; this should be presented in the form of slides and photographs with a detailed description of the original works. Normally a student is expected to attend an interview, but this may be waived in difficult circumstances, in which case a statement of intent will be required. Students who have not previously completed the equivalent of twelve units of art history, six of which must be at the 300 or 400 level, will be required to take the necessary additional courses at the University of Victoria before the granting of the M.F.A.

Students with a B.F.A. from the University of Victoria will be encouraged to seek their master's degree elsewhere.

The program encompasses the four areas of Painting, Photography, Printmaking, and Sculpture, and the student is expected to specialize in one of these areas. Provided that evidence is shown of emphasis and major concentration in the area chosen, the student will be encouraged to pursue other interests which are acceptable and feasible within the limitations of facilities and faculty.

At the end of the first year students must take part in a group show with colleagues in their first year. This exhibition will be evaluated by faculty members in the Department, in order to determine the advisability of a student continuing to the second year. Art 512, 522, 532 and 542 will culminate in a one man show, normally at the end of the second year of study. This final exhibition (598) will be the major source of evaluation for the student's attainment of the M.F.A., and will therefore form the main component of the final oral examination. The other compo-

nent of the oral examination will consist of the statement required for 581.

Notwithstanding the art history requirement, a student must complete the following courses:

one two year sequence: 511 and 512, or 521 and 522, or 531 and 532 or 541 and 542; in addition to 580, 581 and 598.

The student will be expected to meet on a regular basis with his faculty supervisor(s) for constructive critiques and seminars dealing with his work.

### Faculty and Areas of Interest

Mowry Baden, M.A. (Stanford)	Sculpture
Pat Martin Bates, Dip. Royale, (Académie Royale des Beaux Arts, Antwerp), R.C.A.	Printmaking
Roland Brener, Post Dip. A.D. (St. Martin's School of Art, London)	Sculpture
Gwen Curry, M.F.A. (Arizona)	Printmaking
Fred Douglas	Photography
Lynda Gammon, M.F.A. (York)	Drawing, sculpture
Donald Harvey, A.T.D. (Brighton) R.C.A.	Painting, drawing
Douglas G. Morton, R.C.A.	Painting
George W. Tiessen, M.F.A. (Cornell)	Painting

# FACULTY OF HUMAN AND SOCIAL DEVELOPMENT

Brian Wharf, B.A., B.S.W., M.S.W. (Brit. Col.), Ph.D. (Brandeis), Dean of the Faculty.

Michael J. Prince, B.A. (Carleton), M.P.A. (Queen's), Ph.D. (Exeter), Associate Professor (Social Policy)

The Faculty of Human and Social Development comprises the Schools of Child Care, Health Information Science, Nursing, Public Administration and Social Work, and offers undergraduate programs leading to the degrees of Bachelor of Arts in child care, Bachelor of Science in health information science, Bachelor of Science in Nursing, Bachelor of Social Work, and to the Diploma in Public Sector Management; and a graduate program leading to the degree of Master of Public Administration.

All of the schools have developed a distinctive curriculum in response to the needs of their respective professions. However, some clients of the human services cannot be neatly classified by professional boundaries, and hence a major objective of the Faculty of Human and Social Development is to develop opportunities for students who will work together as professionals to learn together while in university. Such opportunities include courses covering common content, workshops and conferences. In addition faculty members in the Faculty of Human and Social Development are encouraged to undertake research projects on an interdisciplinary basis including collaboration with colleagues in other Faculties.

## Admission and Registration

See pages 7-11 inclusive of the Calendar. Probability and Statistics 12 is recommended for undergraduate admission to the Faculty of Human and Social Development. Mature students who do not have Mathematics to the Grade XI level are encouraged to take a refresher course prior to undertaking their studies. See additional requirements under each program.

## Application for Admission

Applicants for the professional schools in the Faculty of Human and Social Development are required to complete a separate application for the School of interest *in addition to* the application to the University.

## General Regulations

Calendar regulations governing registration, fees, and academic advancement (see pages 14-19) apply to all students registered in the Faculty of Human and Social Development. Special regulations are set out under the appropriate area.

## Regulations Concerning Practica

Students should give special attention to the Regulations Concerning Practica (see page 14).

## English Requirement

All four year baccalaureate programs in the Faculty of Human and Social Development will normally include 3 units of English, chosen in consultation with the Department of English.

## Academic Advice

Academic advice about the professional schools in the Faculty of Human and Social Development is available from faculty members of the appropriate school, on an appointment basis.

## Course Work at other Universities

Students who plan to undertake upper level course work at another university must normally receive prior approval from the Dean and the

Director of the School in which the student is registered if they wish such course work to be credited toward a degree program or diploma program in the Faculty of Human and Social Development. Upon successful completion of such course work it is the student's responsibility to request the Registrar of the other university to send an official transcript of record to the Records Office of the University of Victoria.

## Cooperative Education Program

Please refer to page 28 of the Calendar for a general description of Cooperative Education.

In the Faculty of Human and Social Development, a Cooperative Education program is offered by the School of Public Administration at the graduate level and by the Health Information Science Program at the undergraduate level.

Admission to and completion of Cooperative Education Programs are governed by individual departmental requirements. As a required part of the program, students are employed for specific work terms, each with a minimum duration of 13 weeks. This employment is related as closely as possible to the student's course of studies and individual interest.

Students may withdraw from the Cooperative Education Program at any time and remain enrolled in a degree program offered by the school.

Details of the program in the School of Public Administration are outlined on page 232 and on page 240 for Health Information Science.

## Advisory Committees

Programs in the Faculty of Human and Social Development receive the benefit of advice and guidance from advisory committees whose members are drawn from professionals engaged in various private agencies or Government departments. Further information is available from each school or program.

## INTERDISCIPLINARY COURSES

The following elective courses are open to all students undertaking degrees in the Faculty of Human and Social Development.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### FHSD 400 (1½) POLICY IN THE HUMAN SERVICES

The objectives of this course are to provide an introduction to the main organizational structures of, and stages in, the social policy making process in Canada; to strengthen skills in the analysis of policies and programs in Canadian human services; to critically examine different ideologies and theories through which the welfare state has been examined in various countries and to develop an appreciation of the interdisciplinary nature of social policy as a field of academic and applied activity. (3-0)

### FHSD 401 (1½) WOMEN IN THE HUMAN SERVICES

The objective of this course is to analyze the social, economic and political forces which have shaped the status of women in the Human Services. This analysis will include an examination of women as consumers and women in management positions. An important aspect of the course will be a comparison of the status of women in different professions, particularly the traditional women's professions of nursing, social work and child care. (3-0)

## SCHOOL OF CHILD CARE

Alan R. Pence, B.A., M.S. (Portland St.), Ph.D. (Ore.), Associate Professor and Director of the School

James P. Anglin, B.A. (Carleton), M.S.W. (Brit. Col.), Associate Professor  
Carc. J. De Grolm, S.B.St.J., Dip. Teach. (Tas.) Dip.Ed. Deaf, B. Ed., M.Ed. (Brit. Col.), Ph.D. (U. of Vic.), Associate Professor

Roy V. Ferguson, B.A., Ph.D. (Alta.) Associate Professor

Frances A.S. Ricks, B.A. (Ore.), M.Sc. (Indiana), Ph.D. (York), Associate Professor

Marcia D. Hills, B.Sc. (Alta.), M.A., Ph.D. (U. of Vic.), Assistant Professor

Greg Saunders, B.A., M.A. (U. of Vic.), Visiting Lecturer (1987-88)

### PROFESSIONAL ADVISORY COMMITTEE

Dr. Basil Boulton, Medical Coordinator, Child and Family Ambulatory Unit, Victoria General Hospital

Mr. Arnie Campbell, Coordinator of Human Services Programs, Camosun College

Ms. Jennifer Charlesworth, Child and Youth Care Services Association of B.C.  
 Dr. Katie Cooke, Consultant  
 Ms. Gayle Davies, Child Care/Education Consultant, Ministry of Health  
 Mr. Larry Haberlin, Supervisor, Child Care Workers' Services, Vancouver School Board  
 Mr. Eric Jones, Director of Residential Services, The Maples, Vancouver  
 Mr. Paul MacNamara, Director Child and Youth Care Services, Arbutus Society  
 Mr. Alan Markwart, Canadian Centre for Justice Statistics, Victoria  
 Mr. Del Phillips, Investigator, Office of the Ombudsman  
 Ms. Julianna Saxton, Department of Theatre  
 Mr. Dave Watkins, Principal, Victoria High School  
 Dr. Brian Wharf, Dean, Faculty of Human and Social Development

## PROGRAM

The School of Child Care offers a program of academic study and field work practice leading to a B.A. in Child Care. The course of study provides graduates with both the academic breadth of a liberal arts degree and the specific professional education to enter a variety of child and youth care employment settings. These settings range from early intervention with special needs infants to youth correction programs, from community based programs, such as, day cares, schools, and group homes, to residential treatment facilities and hospital based settings. Graduates of the School of Child Care are most often, but not exclusively, employed to provide intensive and continuous therapeutic care to special needs children and youth (0-18 years). The breadth of the child and youth care field requires a primary curriculum focus on generic aspects of caregiving. These generic components include a focus on normative development and social competence as a context for therapeutic intervention.

## BACHELOR OF ARTS IN CHILD CARE

The B.A. in Child Care is awarded following successful completion of 60 units of university recognized credit. On campus students enter the program upon completion of a minimum of 12 units of university credit or its recognized equivalent, e.g., transfer from a community college. (See Admission Procedures below.)

Individual courses in Child Care may be taken by students not enrolled in the B.A. Program with the permission of the Director.

The B.A. program of study includes core and elective courses as outlined in the "basic program" section below. Within this program students have considerable freedom in course selection. Students with professional child care experience who may be eligible to challenge non-practicum courses upon admission to the School of Child Care should consult with their Program Adviser. Practicum courses are not open to challenge; students are placed in practicum settings in accordance with their professional background and current learning needs. Students should give special attention to the Regulations Concerning Practica (see page 14).

## DISTANCE EDUCATION (Off Campus Students)

The B.A. degree in Child Care is being developed for off campus students through courses delivered by distance education. The aim of the off campus program is to allow child and youth care practitioners to continue employment while pursuing professional educational credentials.

The School's introductory core (200 level) courses delivered by distance education may also be taken by students who do not intend to complete the degree program.

### Admission

Admission to the off campus degree program requires the completion of the first two years (30 units) of an undergraduate program, or equivalent, with an overall grade point average of 3.0 (C+) or better. This will normally include 3 units of 100 or higher level Psychology and 3 units of 100 or higher level English. A minimum of two years paid employment in human services positions, with preference given to child and youth care work environments, is normally required for entry into the off campus program.

Off campus students enter the pre-child care degree track through completion of 3 units of child and adolescent developmental psychology at a 200 or higher level, Child Care 200A, 200B, and 252. A minimum grade of C+ in each of the core courses in the curriculum is required to continue with the program. Students who register in these introductory

courses, and indicate an intention to continue with the off campus degree program will be required to provide two references from previous or current employers. After completion of the introductory courses and provision of satisfactory references, students will be admitted to the off campus program. In some cases, students may be required to attend a personal interview to determine suitability for the program.

Off campus candidates for the B.A. in Child Care degree may be permitted, with the approval of the Dean of Human and Social Development, to present up to 9 units of courses in the final 30 units of their program, completed through other institutions than the University of Victoria.

These nine units of course work may consist of 300 or 400 level courses approved as equivalent to University of Victoria courses. Program students are advised to ensure the acceptability by the School of any elective courses through request for a Letter of Permission from the Director of the School. A list of approved equivalents at other institutions is available through Child Care Extension programs.

Up to 50 applicants to the off campus B.A. in Child Care program will be admitted in 1988-89 and the program must normally be completed within six calendar years from the date of admission.

For further information, contact The Director of the School of Child Care at the University of Victoria, Box 1700, Victoria, B.C. V8W 2Y2, telephone (604) 721-7979.

## ADMISSION PROCEDURES (On Campus Students)

Enrollment in the School of Child Care is limited. To be eligible to apply to the School a student must have completed a minimum of 12 units of university study or equivalent recognized transfer credit. Of these units, 3 units of 100 level psychology and 3 units of 100 level English are required. A minimum grade point average of 3.00 (UVic C+) in the immediately preceding 12 units of study is required.

Students who have completed a human services training program at a college may be eligible to receive additional credit from the School. Completed college level human service training programs with a B average or higher will be evaluated at a maximum of 6 nonspecific child care units for a one year training program and a maximum of 12 units for a two year (or more) training program (no more than 15 total).

Students are selected on the basis of personal and professional suitability as well as academic standing. An interview is normally required as part of the application process. Paid or volunteer experience with special needs children and/or youths is considered in the admission decision.

Applicants to the program who are transferring from other postsecondary institutions must submit to the Director of Admission Services by March 31: (1) an Application for Admission to the University, (2) a School of Child Care Application Form, (3) Letter of Intent outlining the applicant's past experience and career objectives, (4) two copies each of any pertinent academic transcripts and diplomas or certificates.

Applicants to the program who are transferring from another faculty within the University of Victoria must submit to the Director of Records Services by March 31: (1) a School of Child Care Application Form, (2) Letter of Intent outlining the applicant's past experience and career objectives.

It is strongly recommended that applicants for the program have a current first aid certificate.

After having completed one or more years in the School of Child Care, a student may apply to the School for leave of absence. The student must consult the School of Child Care concerning possible problems as a result of the leave of absence. Students should not assume that readmission to the program is guaranteed.

## STANDING

Students whose sessional grade point average falls below 3.00 or who fail to receive a C+ grade or higher in any core Child Care course may be required to withdraw from the program.

The Director reserves the right at any time to require any student to withdraw from the School where the School's faculty believe on consideration of scholarship, professional fitness or professional conduct that the student is unsuited for the child and youth care profession.

## REQUIREMENTS

The following academic program is designed to provide professional education which combines specialized practical education together with a basic liberal arts education with considerable flexibility in the choice of

electives, together with specialized practical training. Upon admission to the School of Child Care (Second year), students may wish to consult with a program adviser on course selection prior to course registration.

Core courses are normally restricted to students in Child Care and may be taken by students outside the School only with permission of the instructor.

### FIRST YEAR (introductory year prior to admission to School of Child Care):

#### Required:

Three units of English in consultation with the English Department. (Students usually select from ENGL 115, 116, 121, 122)  
Three units of introductory psychology (normally PSYC 100 or its equivalent)

#### Suggested Electives

6-9 units of courses

Child Care 201 is strongly recommended for students considering entering the School of Child Care. For further suitable first or second year electives see examples listed under Second Year.

### SECOND YEAR:

#### Required:

CC 200A, 200B, 201 and 252  
Three units of child and adolescent development. These are normally PSYC 333A/B or Education-D 305

#### Suggested Electives:

4½ units selected in consultation with a program adviser. The following list is meant to serve as a guide to assist in the selection of courses. Consult the University Calendar for other options.

#### First and Second Year Electives

Examples of suitable First Year and Second Year general electives are:

#### Arts and Science

ANTH 100 or 200 level course  
MICR 101  
BIOC 201  
BIOL 150, or any 200 level course  
CSC 100  
ENGL — a 200 level course  
HIST 205, 349  
LING 100, 250, or 370  
MATH 151 and 102  
PHIL 100 or 269  
POLI 100, 202  
PSYC 200, 220, 230, 240, 250, or 311A, 311B and 312  
SOC 103, 203

#### Education

AE 103  
ED-D 300  
ME — a 100 or 200 level course  
PE — a 100 or 200 level course

#### Fine Arts

MUS 100 or 200  
THEA 181 or other 100 or 200 level course  
ART 100 or 200 level course

#### Human and Social Development

SOCW 200B

### THIRD YEAR:

#### Required:

CC 301  
CC 310  
CC 338

**Electives:** in consultation with a program adviser

### FOURTH YEAR:

#### Required:

CC 410  
CC 420

**Third and Fourth Year Electives:** 13½ units in consultation with program adviser

The School of Child Care normally offers elective courses, focused on areas of interest, during the spring and summer. Areas of interest, with specific examples for student choice, include:

**Age Groups** — infancy, early childhood, preadolescence, adolescence

**Development Needs** — physical, emotional, intellectual/cognitive, social adaptation, family functioning

**Child Care Settings** — preschool/day care\*\*\*, school, recreation, hospital, community based programs in family/home.

**Professional Issues** — ethics, communication skills, self awareness, knowledge of social services, professionalism

\*\*\* Students can include in their program of electives all courses necessary for licensing as a Preschool Day Care Supervisor and a Special Needs Supervisor. Students interested should contact a program adviser to ensure appropriate selection of courses.

The following is a list of courses which relate to the areas of interest mentioned above. This list is meant to serve as a guide for the selection of electives. It is not meant to be exclusive. Students are encouraged to review the full range of university offerings.

#### Arts and Science

ANTH 312, 322, 335, 336,  
339A, 339B  
PSYC 250, 311A, 311B, 312, 313,  
315, 415, 430, 436, 450  
PHIL 331  
SOC 301, 335, 445

#### Education

ED-B 316, 317, 331, 339, 341, 440, 441; ED-D 306,  
406, 410, 411, 414, 415, 417, 433, 434

#### Human and Social

#### Development

CC 460, 475, 485, 486  
CC (SOCW) 350  
FHSD 400, 401 (see p.235)  
HINF 215A, 240

## PROGRAM DEVELOPMENT COMMITTEES

Students in the School of Child Care have made, and are expected to continue to make, through their participation in school activities, significant contributions to program development and the field of child and youth care. All School registrants are urged, wherever possible, to reserve Wednesday, 12:30-1:30 p.m. for committees and other planning purposes.

## COURSES

Normally only 201 and 350 are open to students from other Schools or Faculties. Students not in the School of Child Care should consult with the Director concerning permission to enter other courses.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### Core Courses

#### CC 201 (1½) INTRODUCTION TO PROFESSIONAL CHILD CARE

This course presents an overview of the child and youth care field. It is a required course for program students, however it is also available for nonprogram students. Content includes a survey of the history of the profession and the role of the child and youth care practitioner across a broad spectrum of settings. FS(3-0)

#### CC 200A (1½) CORE CONCEPTS IN CHILD CARE: I

Emphasis will be placed on several relevant theories which relate to the assessment, understanding and management of children's/youths' behaviour. (Restricted to students in the School of Child Care or by permission of the Director) F(3-0)

#### CC 200B (1½) CORE CONCEPTS IN CHILD CARE: II

Specific strategies and techniques of child management and problem-solving will be introduced. Students will critically assess a current issue in child and youth care utilizing professional reporting formats. Values and ethics will be explored in relation to child and youth care practice. (Restricted to students in the School of Child Care, or by permission of the Director) S(3-0)

**CC 252 (formerly 352) (3) FUNDAMENTALS OF CHANGE IN CHILD CARE PRACTICE**

This course focuses on facilitating purposive change in the lives of children and youths involved in a broad spectrum of group care and community based settings. The use of communication skills and helping strategies, and the development of therapeutic relationships are explored in relation to the development of self and core elements of child and youth care practice. Y(3-0)

**CC 301 (3, formerly 4½) PROFESSIONAL CHILD CARE PRACTICE: THEORY AND APPLICATION**

This course integrates theory and practice in the application of child and youth care by focussing on issues and techniques in assessment, case planning and intervention; major therapeutic approaches and their associated philosophies, goals, strategies and techniques; practical models for case consultation, presentation and evaluation. Students will demonstrate competency in these professional practice areas, real or simulated, and analyze the relationship between professional knowledge, skills, values and styles. (Prerequisite: 200A and 252) Y(3-1-2)

**CC 310 (formerly 210A/B) (3) SUPERVISED PRACTICUM**

Students are required to work directly with children/youths in a supervised practice situation in order to promote professional skill acquisition and integration, emphasis is placed on observation and recording skills, understanding the structure and functioning of a service agency, and fostering the student's awareness of his or her functioning in relation to children, youth and agency workers. Attention will also be given to developing beginning level case planning, intervention and case presentation skills with both a one to one and a group focus. (Enrollment restricted to students in the School of Child Care) (Prerequisite 200A, 200B and 252. Corequisite: 301). Y(1-6)

**CC 338 (3) APPLIED DEVELOPMENTAL PSYCHOLOGY**

This course focuses on the clinical application of contemporary theory in child and youth development. Content examines group and individual practice issues in relation to specific environments. An emphasis is placed on current developmental research and its application to program design and professional practice. (Prerequisite: PSYCH 333 A & B or equivalent) Y(3-0)

**CC 410 (4½, formerly 3) ADVANCED SUPERVISED PRACTICUM**

This supervised practicum focuses on the student's chosen professional area of interest and provides an opportunity to apply case planning, intervention and evaluation skills at an advanced level. Professional consultation, clinical functioning and the integration of theory and practice, are emphasized. Ten hours per week in the practicum setting and one hour per week in a seminar. (Restricted to Child Care students in their fourth year of study) (Prerequisites: 301, 252 and 310) Y(1-10)

**CC 420 (3) APPLIED RESEARCH AND PROFESSIONAL DEVELOPMENT IN CHILD CARE**

This course introduces students to ways in which knowledge in the child and youth care field is developed. The course provides students with the skills and information necessary to access and critique literature in the field, and to appreciate and understand basic issues, designs and statistical techniques in child and youth care research and evaluation. In addition, students develop technical writing skills and practise group work skills while developing an applied research proposal. (Enrollment re-

stricted to Child Care students in their fourth year of study.) (Pre- or Corequisites: 301 and 310) Y(3-0)

**Optional Courses****CC 290 (1½ or 3) DIRECTED STUDIES IN CHILD CARE**

This course allows for research projects, additional course work or directed reading in a specified area and is intended primarily to assist students transferring from other institutions or programs. Directed Studies may be chosen only in consultation with the Director of the School.

**CC 350 (SOCW 350) (3) LAW AND SOCIAL SERVICES**

The objective is to provide students in Child Care and Social Work with an understanding of the Law as an expression of social policy, and of the processes by which laws are developed, enacted and changed; Family Law and the Family Courts, with special reference to laws affecting children; human rights as they apply to social services; the organization of legal services and the legal accountability and liabilities of social workers, child care workers, and others in the social service field. (Prerequisite: Third year standing or permission of instructor) Y(3-0)

**CC 390 (1½ or 3) DIRECTED STUDIES IN CHILD CARE**

Research projects, directed readings, or additional course work in a specified area. Courses may be chosen only in consultation with the Director of the School. (May be taken more than once for credit, provided the course content is different from that previously taken)

**CC 460 (1½ or 3) SPECIAL TOPICS IN CHILD CARE**

This course provides an opportunity to examine selected current issues in child and youth and family care. (Restricted to students in their third or fourth year of study and may, with approval of a faculty adviser, be taken more than once for credit) (3-0)

**CC 475 (1½) GROUP WORK IN PROFESSIONAL CHILD CARE**

Theoretical approaches and techniques relating to the planning and management of groups. Content focuses on developing practical skills required to organize and conduct groups with children and youths. (Restricted to fourth year students in the School of Child Care or by permission of the Director. Students will participate in the organization and management of a group.) (May not be offered) (3-0)

**CC 485 (SOCW 485) (1½) SYSTEMS APPROACH TO THE FAMILY: I**

This course focuses on family systems theory and the application of systems constructs in working with the child in the context of the family. Restricted to students in their fourth year of study. (May not be offered) (3-0)

**CC 486 (SOCW 486) (1½) SYSTEMS APPROACH TO THE FAMILY: II**

This course provides a laboratory learning environment which allows the students to observe, demonstrate and discuss family systems theory, constructs and interventions. (Restricted to students in their fourth year of study) (Prerequisite: 485 (SOCW 485) or equivalent) (May not be offered) (3-2)

**CC 490 (1½ or 3) DIRECTED STUDIES IN CHILD CARE**

Research projects, directed reading, or additional course work in a specified area. Courses may be chosen only in consultation with the Director of the School. (May be taken more than once for credit, provided the course content is different from that previously taken)

**SCHOOL OF HEALTH INFORMATION SCIENCE**

Denis J. Protti, B.Sc. (Alta.), M.Sc. (Man.), Professor and Director  
Kathryn J. Hannah, R.N.; B.S.N., M.S.N. (Medical College of Georgia), Ph.D. (Alta.), Adjunct Professor (1987-89)

Jochen R. Moehr, Staatsexamen, Dr. med. (Marburg), Habilitation Medizinische Informatik (Hanover Med. School), Professor  
Kenneth R. Thornton, B.Sc., M.B.Ch.B. (Leeds), Adjunct Professor (1987-89)

Walter Dietiker, B.A.Sc. (Brit. Col.), Ph.D. (Manc.), Associate Professor  
Paul S. Dubas, B.A. (Tor.), D.P.A., M.A. (Carleton), Adjunct Associate Professor (1986-88)

Kenneth Fyke, B.S.P. (Sask.), M.H.S.A. (Alta.), Adjunct Associate Professor (1986-88)

Gerhard W. Brauer, B.A. (U. of Vic.), M.A. (Brit. Col.), Assistant Professor

Michael H. Nusbaum, B.A.Sc. (Tor.), M.H.S.A. (Alta.), Adjunct Assistant Professor (1987-89)

James H. Coward, Cooperative Education Coordinator  
Kirk B. McGowan, B.Sc. (U. of Vic.), Programmer Analyst

**COMMUNITY ADVISORY COUNCIL**

Mr. G. Clements, Director of Legal Services, Ministry of Health, Victoria  
Dr. J.W. Dutton, Cardiovascular Surgeon, Victoria

Mr. M. Halkett, Director of Hospital Services, Capital Regional District, Victoria

Ms. M. Hall, Manager Health Care, Stevenson, Kellogg, Ernst & Whinney, Victoria

Mrs. F. Harrison, Vice-President Patient Care, Greater Victoria Hospital Society, Victoria

Mrs. L.A. King, Director, Quality Assurance, Victoria General Hospital  
Mr. W. Lawrence, Director of Research and Evaluation, Ministry of Health, Victoria

Mr. C. Lovelace, Assistant Deputy Minister, Management Operations, Ministry of Health, Victoria

Dr. G. Martin, Chief, Clinical Pathology Service, Royal Inland Hospital, Kamloops  
 Mr. P. McAllen, General Manager, Computer Services, B.C. Health Association, Vancouver  
 Mr. R. McDermit, President, U.B.C. Health Sciences Hospital, Vancouver  
 Mr. D. Muilins, Marketing Manager, IBM Canada Ltd., Vancouver  
 Mr. C. Rowe, Executive Director, Victoria General Hospital, Victoria  
 Mr. M. Telford, Executive Director, Nanaimo Regional General Hospital, Nanaimo, B.C.

## PROGRAM

Health Information Science is the study of the nature of information and its processing, application and impact within a health care system. Health Information Science integrates management sciences, computing and communications technologies, and information systems with formal study of health care systems. The Bachelor of Science in Health Information Science is a four year Cooperative Education program consisting of an introductory first year, followed by three years in the School itself.

## ADMISSION REQUIREMENTS

Students may be formally admitted to the School of Health Information Science upon successful completion of 15 units of appropriate university level credit.

Admission to the School of Health Information Science is limited to approximately 30 students per year. Students are selected on the basis of grades, a personal written submission and an interview. A second class average in the immediately preceding 15 units of university level studies and completion of the prerequisite courses are normally required for admission into the School.

Prospective students are encouraged to consult the Director prior to or during their first year of University studies.

Applicants transferring from postsecondary institutions must submit an Application for Admission to the University and a Health Information Science Application Form to the Director of Admission Services by April 30. Forms are available from Admission Services.

University of Victoria students (those seeking admission from another faculty and those previously enrolled in the Program) must submit an Application for Reregistration and a Health Information Science Application Form to Records Services by April 30.

Credit for previous postsecondary studies may be granted as appropriate. Applicants seeking advanced placement are advised to read the minimum degree requirements on page 18 of the Calendar.

## STANDING

Students who do not maintain a sessional grade point average of 3.50 or better will normally be required to withdraw from the School.

The Director reserves the right at any time to require any student to withdraw from the program where the School's faculty believe on consideration of scholarship, professional fitness or professional conduct that the student is unsuited for the Health Information Science profession. Avenues of appeal and redress can be found on page 13 of the Calendar.

A student in the School of Health Information Science should inform the Director of any intended prolonged absence. Students should not assume that readmission to the School is guaranteed.

## COOPERATIVE EDUCATION

Please refer to page 28 of the Calendar for the general description of Cooperative Education.

The distinguishing feature of the Cooperative Education approach is the inclusion, as an integral part of the degree, of four Work Terms of approximately thirteen weeks in length. These Work Terms begin the student's Second Year and normally alternate with formal academic terms in Health Information Science. Students with prior relevant work experience may, on admission, apply for exemption from one Work Term.

During a Work Term, students are employed in a full time, health care related job in either the public or private sector. For all practical purposes, Cooperative Education students on Work Terms are regular employees and receive salary and benefits in accordance with the employer's policy. Both the employer and the University evaluate the student's performance on each Work Term. Each Work Term is recorded on the student's Official Transcript of Academic Record (as COM, N, or F). Details of Work Terms are recorded on the Record of Work Terms which is attached to the Academic Record.

## PROGRAM REQUIREMENTS

To meet the requirements of a major in Health Information Science, students must complete 60 units which include a core of 39 units, a minimum of 7½ units selected from one or more of the Areas of Concentration, 13½ units of electives, and a minimum of four Work Terms (students with prior relevant work experience may be required to complete only three Work Terms). COOP work term locations are across Canada and students must be prepared to accept placement outside of Victoria. Students are normally expected to select an Area of Concentration in their Second Year of studies in order to satisfy the prerequisites for Third and Fourth year courses.

The following courses, or their equivalents, are prerequisite to admission to the School:

### First Year (Pre-Health Information Science Year):

C SC 110	(1½)	Computer Programming: I
or		
C SC 112	(1½)	Introduction to Computer Science
C SC 115	(1½)	Computer Programming: II
English	(3)	English 115 and any other English course
HINF 161	(1½)	Introduction to Health Information Science: I
HINF 162	(1½)	Introduction to Health Information Science: II
MATH 151	(1½)	Finite Mathematics
MATH 102	(1½)	Calculus for Students in the Social Sciences
or		
MATH 100	(1½)	Calculus: I
3 units of electives		

Students may not receive credit for both CSC 112 and HINF 162. Students with credit in CSC 112 will normally be required to take a proficiency test in the use of computer equipment specified by the School.

### Second Year: First Term

CSC 275	(1½)	File Structures for Data Processing
HINF 240	(1½)	Introduction to Health Care Delivery
One of the following:		
STAT 250	(1½)	Introduction to Statistics: I
or		
BIOL 250	(1½)	Biometrics: I
or		
ECON 240	(1½)	Descriptive Statistics
Elective	(1½)	

### Second Year: Second Term

CSC 375	(1½)	Systems Analysis
ENGL 225	(1½)	Technical Communications: Written and Verbal
HINF 270	(1½)	Medical Methodology
One of the following:		
STAT 251	(1½)	Introduction to Statistics: II
or		
BIOL 251	(1½)	Biometrics: II
or		
ECON 340	(1½)	Statistical Inference
Elective	(1½)	

### Second Year: May-August

COOP work term

### First and Second Year Electives:

Suggested electives in First and Second Year include:

COMM 120	(1½)	Principles of Organizational Behaviour
COMM 251	(1½)	Fundamentals of Financial Accounting: I
CSC 225	(1½)	Digital Structures
CSC 230	(1½)	Computer Systems and Assembly Language
CSC 250	(1½)	Digital Logic and Computer Organization
ECON 201	(1½)	Principles of Microeconomics
ECON 202	(1½)	Principles of Macroeconomics
MATH 222	(1½)	Discrete Mathematics
PE 241A	(1½)	Introduction to Human Cellular Physiology
PHIL 201	(1½)	Applied Logic: I
PHIL 222A	(1½)	Philosophy of Science: Methodological Issues
PHIL 222B	(1½)	Philosophy of Science: Social and Ethical Issues
THEA 150	(1½)	Speech Communication
<b>Third Year: First Term</b>		
HINF 300	(1½)	Health Information Systems

HINF 351	(1½)	Hospital Information Systems: I
HINF 460	(1½)	Quality Assurance & Ethics
Electives	(3)	

**Third Year: Second Term**

COOP work term

**Third Year: May-August**

HINF 325	(1½)	Fiscal Management in Health Services
HINF 330	(1½)	Health Care Law
HINF 340	(1½)	Principles of Community Health
HINF 352	(1½)	Hospital Information Systems: II
HINF 380	(1½)	Epidemiology: I

**Fourth Year: First Term**

COOP work term

**Fourth Year: Second Term**

HINF 415	(1½)	Patient Care Support Systems
HINF 440	(1½)	Health Care Systems
HINF 445	(1½)	Distributed Processing in Health Care
Electives	(3)	

**Fourth Year: May-August**

COOP work term

**Fifth Year: First Term**

Electives (7½)

Three Areas of Concentration are identified in the Third and Fourth Years. Students normally select a minimum of 7½ units from one or more of the Areas of Concentration to complete their degree. Other senior level courses may be taken with the approval of the Director.

Health Information Science students require permission of the Dean of Engineering to take Engineering courses.

**Area of Concentration — Administration**

ADMN 406	(1½)	Organizational Analysis
ADMN 431	(1½)	Personnel Management in the Public Sector
FHSD 400	(1½)	Policy Making in the Human Services
HINF 320	(1½)	Health Economic Issues and Trends
HINF 410	(1½)	Administrative Support Systems
HINF 420	(1½)	Management of Health Services
NURS 450	(1½)	Administration in Health Services
PHIL 330	(1½)	Professional and Business Ethics
PHIL 331	(1½)	Issues in Biomedical Ethics
PSYC 334a	(1½)	Personnel and Organizational Psychology
SOCW 450	(1½)	Administration in the Human Services

**Area of Concentration — Health Services Research**

ADMN 437	(1½)	Public Sector Program Evaluation
ANTH 312	(1½)	Medical Anthropology
ECON 416	(1½)	Cost Benefit Analysis: Principles and Application
HINF 480	(1½)	Epidemiology: II
PHIL 332	(1½)	Philosophy and Technology
SOCI 445	(1½)	Sociology in Health and Medicine
STAT 354	(1½)	Sampling Techniques
STAT 453	(1½)	The Design and Analysis of Experiments

**Area of Concentration — Medical Informatics**

CENG 485	(1½)	Pattern Recognition
CENG 490	(1½)	Artificial Intelligence
C SC 350	(1½)	Computer Architecture
C SC 360	(1½)	Introduction to Operating Systems
C SC 450	(1½)	Computer Communications and Networks
C SC 470	(1½)	Database Systems
HINF 385	(1½)	Computer Applications in Nursing
HINF 450	(1½)	Software Engineering Application in Health Care

**COURSES**

Students from other Schools and Faculties may take 3rd and 4th year Health Information Science courses on approval of the Director and their respective Director or Chairman. If enrollment restrictions are necessary, preference will be given to students registered in the Faculty of Human and Social Development.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

**HINF 161 (1½) INTRODUCTION TO HEALTH INFORMATION SCIENCE: I**

An introduction to the principles of information, organization, and systems theory, to the forms of technology used in health care delivery, to the role that technology plays in shaping the health care delivery system and the associated ethical issues. (Students with credit in 160 must consult the Director for placement.) FK(3-0)

**HINF 162 (1½) INTRODUCTION TO HEALTH INFORMATION SCIENCE: II**

An introduction to the knowledge and skills expected of a professional working in the field of Health Information Science. The basic concepts of the field are established, the methodologies used are investigated, the organizational settings are identified, and the people involved are introduced. (Students with credit in 160 must consult the Director for placement.) (Prerequisite: 161) SK(2-2)

**HINF 240 (1½) INTRODUCTION TO HEALTH CARE DELIVERY**

An overview of the organization, operation and administration of the Canadian health care delivery system which provides the student with an understanding of how the multiple components and inter-relationships are integrated. F(3-0)

**HINF 270 (1½) MEDICAL METHODOLOGY**

The process of clinical decision making in diagnosis, treatment planning, and prognosis. Alternate models for clinical decision making using subjective and objective data and information. Integrates the principles of physiology and pathophysiology. (Prerequisite: 240) S(3-0)

**HINF 290 (1½) DIRECTED STUDY**

An opportunity to study, only under special circumstances, a particular area leading to the development of a project approved by the Director.

**HINF 300 (1½) HEALTH INFORMATION SYSTEMS**

The study of General Systems Theory, particularly as it applies to the information required in the management of systems. The importance of structuring and managing data using database management technology. The application of these principles to information systems in varying health care organizations. (Prerequisite: Health Information Science 162 or permission of the Director.) F(2-2)

**HINF 325 (1½) FISCAL MANAGEMENT IN HEALTH SERVICES**

An examination of the systems and financial reporting required to support management decision making in health care delivery. Topics include institutional accounting and budgeting, provincial and federal government requirements, clinical program budgeting. (Prerequisite: 300) K(3-0)

**HINF 330 (1½) HEALTH CARE LAW**

Designed to allow students to develop an understanding of the origin and sources of the law as it applies to the Canadian health care system. Stimulates an appreciation for legal terminology, reasoning, and processes as well as basic principles of law which apply to and govern the delivery of health care services in Canada. K(3-0)

**HINF 340 (1½) PRINCIPLES OF COMMUNITY HEALTH**

Develops an appreciation of the principles and practice of health protection and promotion in the community, including consideration of occupational and environmental health concerns. Particular attention is given to the changing roles and functions of health professionals and to the investigative and service delivery aspects of community medicine. May in some years focus on issues in the delivery of health care in Third World countries. (Prerequisite: 270) K(3-0)

**HINF 351 (1½) HOSPITAL INFORMATION SYSTEMS: I**

This course simulates what a hospital normally goes through when it conceptualizes the need for a hospital information system, identifies its goals and objectives for the system, prepares a Request for Proposal (RFP), and selects a particular system. The various methodologies and dynamics involved are investigated. (Prerequisite: 300) F(2-2)

**HINF 352 (1½) HOSPITAL INFORMATION SYSTEMS: II**

Provides a comprehensive study of the architecture of hospital information systems and assesses the functionality of several prominent models thereof. (Prerequisite: 351) K(3-0)

**HINF 380 (1½) EPIDEMIOLOGY: I**

An introduction to the principles of epidemiological investigation in the monitoring of disease occurrence, disease control, and health program evaluation. (Prerequisite: 270) K(2-2)

**HINF 385 (NURS 385) (1½) COMPUTER APPLICATIONS IN NURSING**

This interdisciplinary course for Nursing and Health Information Science students is designed to facilitate the exploration of the impact of information technology in relation to the nursing profession. Course content focuses on computer applications and related issues in nursing practice, nursing administration, nursing education, and nursing research. F(3-0)

**HINF 410 (1½) ADMINISTRATIVE SUPPORT SYSTEMS**

The application of scientific evaluation methodologies in the study and analysis of clinical and management information systems. Topics include: Problem formulation, selection of research design, data and organizational analysis, and interpretation. (*Pre- or corequisite:* 325) S(2-2)

**HINF 415 (1½) PATIENT CARE SUPPORT SYSTEMS**

Provides a thorough coverage of concepts, methodologies and techniques available to support patient care processes through the use of information technology. Includes a review of factual and patient information systems, signal and pattern processing applications, decision support, simulation, and education and training applications. (*Prerequisite:* 352) S(2-2)

**HINF 440 (1½) HEALTH CARE SYSTEMS**

An examination of the structure and function of the current health delivery system, particularly from the point of view of how information flow influences health care trends and policy formulation. Emphasis is on community, regional, provincial and national information flows. (*Prerequisite:* 340) S(3-0)

**HINF 445 (1½) DISTRIBUTED PROCESSING IN HEALTH CARE**

A management perspective to data communications technology, networks, and distributed processing. Emphasis is on examining the impact of emerging communications microcomputer technology on information systems in varying sectors of the health care delivery system. (*Prerequisite:* 300) S(2-2)

**HINF 450 (1½) SOFTWARE ENGINEERING APPLICATIONS IN HEALTH CARE**

Provides a thorough coverage of the concepts and methodologies available to design, produce and evaluate software in a health information systems context. (*Prerequisite:* 300) S(2-2)

**HINF 460 (1½) QUALITY ASSURANCE AND ETHICS**

Provides an in depth assessment of the quality, interpretation and use of health data in the area of direct patient care. Students analyze the data elements and the methodologies used to assess such factors as quality, social impact and clinical significance. The ethical and confidentiality issues encountered are examined. (*Prerequisite:* 270) F(3-0)

**HINF 480 (1½) EPIDEMIOLOGY: II**

Application of epidemiological principles to the study of acute and chronic diseases. Epidemiological research methods will be studied, from problem conceptualization and design to analysis. (*Prerequisite:* 380) F(2-2)

**HINF 490 (1½ or 3) DIRECTED STUDY**

Students wishing to pursue a course of directed reading should, together with a faculty member willing to supervise such a course, formulate a proposal describing both the content of the course and a suitable means of evaluating the student's work. The proposal must then receive the approval of the Director. FS

**HINF 491 (1½) TOPICS IN HEALTH INFORMATION SCIENCE**

Through this course the Program offers advanced topics in various areas of Health Information Science. Information on the topics available in any given year will be available from the Director. Entry to this course will be restricted to third and fourth year students who meet the prerequisite specified for the topic to be offered. (May be taken more than once for credit, provided the course content is different from that previously taken) F(3-0)

## SCHOOL OF NURSING

### ADMISSION REQUIREMENTS

B.S.N. for Registered Nurses:

- Active registration as a Registered Nurse in British Columbia.
- Two current references indicating a competent standard of nursing practice.
- Demonstrated academic proficiency, e.g. a score of 500 on the Canadian Nurses Association Testing Service Examinations and/or successful completion of university level course work.

NOTE: Since enrollment in the program is limited, all applicants are individually assessed by the School of Nursing.

### PROGRAM REQUIREMENTS

#### General:

Applicants must meet the general University requirements on pages 7-19 of this Calendar. Of special note are the following regulations:

- All students must meet the English requirement as set forth on page 12 of the Calendar.
- All students must obtain a sessional grade point average of 3.50. Students failing to do so may be required to withdraw from the School. In addition, the School is responsible for the safety of nursing practice and therefore reserves the right to ask a student to withdraw when ethical, medical or other reasons interfere with satisfactory clinical practice.
- Students admitted to the B.S.N. program *prior to January 31, 1988*, must complete 33 units, 30 of which must normally be at the 300 level or higher. The remaining three units may be at the 200 level, with the exception of statistics which may be completed at the 100 level. Students admitted to the B.S.N. program *after January 31, 1988*, must complete 34½ units, 31½ of which must normally be at the 300 level or higher. The remaining 3 units may be at the 200 level, with the exception of statistics which may be completed at the 100 level.
- Registered Nurse candidates for the B.S.N. degree, admitted to the program *prior to January 31, 1988*, may be permitted with the approval of the Dean of Human and Social Development, to present up to 12 units of courses completed through institutions other than the University of Victoria. These courses normally must have been completed within the three years prior to admission to the B.S.N. Pro-

Dorothy J. Kergin, B.S.N. (Brit. Col.), M.P.H., Ph.D. (Mch.), D.Sc. (McMaster), Professor and Director of the School (to June 30, 1988)

Jessie Mantle, B.N. (McGill), M.S.N. (Calif., San Francisco), Professor  
Mary L. Richmond, B.N. (McGill), M.A. (Columbia), Visiting Professor (1987-88)

Carolyn Attridge, B.Sc.N. (McMaster), M.N. (Wash.), M.A., Ph.D. (Tor.), Associate Professor

Jean Isobel Dawson, B.Sc.N. (McGill), M.Sc.N. (St. Louis), M.A., Ph.D. (Tor.), Associate Professor

W.H. Dyson, B.Sc. (Moravian), M.A., Ph.D. (Kansas), M.D. (McMaster), Adjunct Associate Professor (1986-88)

Helen Evans, B.Sc.N. (W. Ont.), M.S. (Boston), Visiting Associate Professor (1987)

L. Claire Bennett, B.S.N. (Brit. Col.), M.N. (Wash.), Visiting Assistant Professor (1987-88)

Elaine M. Gallagher, B.Sc. (Windsor), M.Sc. (Duke), Assistant Professor

Marilyn F. Jackson, B.N. (Man.), M.Ed. (Tor.), Assistant Professor  
Susan P. Smith, B.A., M.H.Sc. (McMaster), M.A. (U. of Vic.), Assistant Professor

Sheila J. Zerr, B.Sc., M.Ed. (Ott.), Visiting Assistant Professor (1987-88)

### PROGRAM OFFERED

#### Baccalaureate Program for Registered Nurses:

A program consisting of 34½ units at the third and fourth year level, leading to the degree of Bachelor of Science in Nursing (B.S.N.).

The basic purpose of the B.S.N. program is to prepare students with the knowledge, skills, methods, and values necessary to practise nursing with individuals and groups wherever nursing takes place, such as community health agencies, acute and extended care hospitals and a variety of other settings. The program is also intended to provide the basic competencies to permit graduates to develop the additional skills needed to work in highly specialized situations and to move into leadership positions.

NOTE: A four year generic (basic) program is included in the future plans for the development of the School of Nursing.

gram, or must be completed within six years from the date of admission to the Program. Three units of such courses may be the required three units of electives at the 200 level or above, taken outside the School and approved as equivalent to University of Victoria courses. The remaining nine units may consist of 300 or 400 level courses within or outside nursing, approved as equivalent to University of Victoria courses.

Registered Nurse candidates for the B.S.N. degree, admitted to the program after January 31, 1988, may be permitted with the approval of the Dean of Human and Social Development, to present up to 13½ units of courses completed through institutions other than the University of Victoria. These courses normally must have been completed within the three years prior to admission to the B.S.N. Program, or must be completed within six years from the date of admission to the Program. 10½ units may consist of courses within or outside nursing which are approved as equivalent to required University of Victoria courses, including electives, and which transfer at the 300 or 400 level. As noted under 3. above, three units may transfer at the 100 or 200 level but must still be approved for transfer credit. Students are advised to ensure the acceptability by the School of any courses in advance of enrolling in them.

- Normally students in the program must complete the final 15 units of courses at the University of Victoria (see page 14). "At the University of Victoria" includes University of Victoria courses taken through distance education.
- The program must normally be completed within six calendar years from the date of admission.
- If taken on a full time basis, the program will take two calendar years to complete. However, students may complete the entire program as part time students.

#### Part Time and Off Campus Studies:

Some required courses are offered through the Division of University Extension and Community Relations in the evening during the Winter Session (September-April) and in the daytime or late afternoon during May-June and July-August. Most required nursing courses are taught through distance education, as well as on campus in Victoria. In distance education courses, the educational media may include print packages, television and audio tapes, telephone tutorials, and, when necessary face to face group sessions. Certain courses may be undertaken through the Open Learning Authority or other post secondary institutions with permission of the School.

#### Practica:

Applicants are advised that clinical experience in health care agencies, in and outside of Victoria, is an essential part of the Nursing Program. Students must meet the registration or licensure requirements of the jurisdiction in which they have their clinical practica. It may not be possible to arrange practica in the location and at the time which is preferred by students. Students must also provide their own transportation. Applicants are referred to page 14 of the Calendar for regulations concerning practica.

**Baccalaureate Program for Registered Nurses:** (Students admitted to the program up to January 31, 1988 will normally take the following courses:)

#### Year 3

NURS 301	(3)
NURS 302	(3)
NURS 303 or 406	(3)
+PSYC 333A and 333B	(3)
*SOCI 305	(3)

#### Year 4

NURS 401	(1½)
NURS 402 or 310	(1½)
NURS 404	(1½)
NURS 410	(3)
NURS 411	(3)
NURS 450	(1½)
* SOCI 371	(1½)
* Elective(s): Any course(s), at the 200 level or above outside the School	(3)

One of the following:

* SOCI 445	(1½)
* PHIL 331	(1½)
* ANTH 312	(1½)

† Developmental Psychology must ordinarily be taken at the 300 or 400 level. Alternative courses to meet these requirements may be chosen in consultation with the Director of the School or a designated faculty representative.

\* Alternative courses to meet these requirements may be chosen in consultation with the Director of the School or a designated faculty representative.

**Baccalaureate Program for Registered Nurses:** (Students admitted to the program after January 31, 1988 will normally take the following courses:)

#### Year 3

NURS 306	(3)
NURS 307	(3)
NURS 308	(1½)
NURS 309	(1½)
NURS 310 or 402	(1½)
*SOCI 305	(3)

#### Year 4

NURS 401	(1½)
NURS 404	(1½)
NURS 406 or 303	(3)
NURS 415	(3)
NURS 450	(1½)

Three units from the following:

NURS 480, NURS 481, NURS 482,

NURS 483, NURS 485 (3)

\* SOCI 371 (1½)

PHIL 331 (1½)

One of the following: PSYC 333B,

\* SOCI 385, \*PE 449 (1½)

\* Elective(s): Any course(s), at the 200 level or above outside the School (3)

\* Alternative courses to meet these requirements may be chosen in consultation with the Director of the School or a designated faculty representative.

Additional electives open to students in the Schools of Child Care, Health Information Science, Nursing, Public Administration, and Social Work are courses offered by the Faculty of Human and Social Development: Policy in the Human Services (FHSD 400) and Women in the Human Services (FHSD 401). (See page 235.)

## COURSES

Courses offered by departments other than the School of Nursing are described under the appropriate heading in the Calendar. Students should note carefully any departmental prerequisites for courses. If prerequisites cannot be met, students are advised to consult with the appropriate chairman.

All courses are open to Nursing students only unless otherwise noted in the course description. Course challenges are not available for nursing courses.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

#### NURS 301 (3) THEORIES AND CONCEPTS IN NURSING

This course investigates selected concepts, theories and nursing models which have application for individuals' health and illness situations. The foci of study are the individual within the context of the family and the practitioner within the context of the group. (Normally, program credit will not be granted for 301 and 306, 307, 308, or 309.) (Note: This course will not be offered on campus after 1987-88) Y(3-1)

#### NURS 302 (3) CLINICAL STUDIES IN NURSING

This course provides the student with an opportunity to develop skills in clinical problem solving, communication and health assessment. In a direct care practicum, students use these skills to apply the theory gained in 301. Practica sites include institutions and other selected settings. (Normally, program credit will not be granted for 302 and 306, 307, 308, or 309.) (Pre- or corequisite: 301) (Note: This course will not be offered on campus after 1987-88) Y(0-6)

#### NURS 306 (3) CLINICAL STUDIES: I

This course provides an introduction to theory based nursing within institutional and community settings. Its focus is on theory and practice relevant to nursing care for families and groups across the lifespan, in-

cluding the elderly. The course assumes that students have had a basic introduction to the nursing process. (Normally, program credit will not be granted for both 306 and 301, 302.) (*Pre- or corequisites*: 308, SOC1 305 or permission of instructor) F(3-5-1)

### **NURS 307 (3) CLINICAL STUDIES: II**

This course is a continuation of 306. Students will continue to work with families and groups. They will extend their knowledge of health related frameworks and current concepts of nursing, and apply these to community practice (e.g. epidemiology, change theory). (Normally, program credit will not be granted for 307 and 301, 302.) (*Pre- or corequisites*: 306, 309 or permission of instructor) S(3-5-1)

### **NURS 308 (1½) CLINICAL DIAGNOSES**

This course investigates the knowledge required to diagnose and manage selected clinical problems within the domain of nursing. For each diagnosis studied, relevant clinical research findings and theoretical formulations will be discussed. Diagnostic concepts will be selected from the available diagnostic classification systems. The course assumes that students have had experience in using the nursing process in practice. (Normally, program credit will not be granted for 308 and 301, 302.) F(3-0)

### **NURS 309 (1½) COMMUNICATION IN NURSING**

Study of effective interpersonal communication in the client-nurse and nurse-colleague relationships. Theories of interpersonal communication form the foundation for skill-building of a mutual, problem solving approach with clients and colleagues. Students will learn to establish, maintain and terminate effective helping relationships with individuals. Expectations are for competency in assessment, planning, and evaluation interviews and for enhanced skills in difficult client-nurse and nurse-colleague situations. (Normally, program credit will not be granted for both 309 and 302.) S(3-0)

### **NURS 310 (formerly 402) (1½) THE TEACHING-LEARNING PROCESS IN HEALTH CARE**

This course is designed to enable health professionals to recognize and take advantage of teaching opportunities in various health care environments. Emphasis is upon the selection and adaptation of teaching techniques to a variety of patients/clients/others and environments and the establishment of criteria for behavioural assessment of teaching effectiveness. (Open to students in Nursing and, with the instructor's permission, to other health professionals.) FS(3-0)

### **NURS 390 (1½ or 3) DIRECTED STUDIES**

Directed readings, research projects or special studies in a specified area of interest. A proposal is developed in consultation with a faculty member and includes a plan for the evaluation of the student's work. The proposal must receive the approval of the Director before students are permitted to register. (Offered as resources permit.)

### **NURS 401 (1½) NURSING RESEARCH**

This course is designed to introduce the student to the field of research in nursing, building upon an introductory level knowledge of statistics. Discussion of research design and its application to nursing, development of a design for research study in an area of interest, and critical analysis of selected nursing research studies by students comprise three components of the course. Teaching methods include lecture, seminar, and individual student advisement. (*Pre- or corequisite*: Introductory course in Statistics, e.g. SOC1 371, PSYC 300, or other course approved by Director) FS(3-0)

### **NURS 404 (1½) PROFESSIONAL ISSUES IN NURSING AND HEALTH CARE**

This course focuses on professional issues in nursing, including the role of individual nurses and the professional organizations in changing the health care delivery systems and in functioning with those systems. (*Pre-requisite*: Fourth year standing or permission of the Director) S(3-0)

### **NURS 406 (formerly 303) (3) HEALTH SCIENCE**

This course will provide a comprehensive overview of the science necessary to understand the functioning of the human body in health and disease. Important aspects of anatomy, cell biology, biochemistry, physiology and nutrition are combined to facilitate the understanding of chronic disease states. (Restricted to Registered Nurse students in the B.S.N. program. Other students require the permission of the instructor.) Y(3-0)

### **NURS 410 (3) COMMUNITY HEALTH NURSING THEORY**

This course focuses on theory and skills required for Community Health

Nursing. Nursing theories and relevant concepts from public health and the social sciences form the basis for a population focused approach to nursing care. Emphasis is placed on the promotion of health and prevention of disease and disability in families and groups within the community. (Usually 410 and 411 are taken together.) (Normally, program credit will not be granted for 410 and 415 or 480.) (*Prerequisite*: 301, 302) (Note: This course will not be offered on campus after 1988-89) Y(3-0)

### **NURS 411 (3) COMMUNITY HEALTH NURSING PRACTICE**

In this course students practice the theory and skills of 410. Students work with field guides in a variety of community agencies to provide nursing care to families and groups in ways that consider course, student, agency and patient goals. Opportunities for both concurrent and block field experience are available. (Normally, program credit will not be granted for 411 and 415, 480.) (*Prerequisites*: 301 and 302; *Pre- or corequisite*: 410) (Note: This course will not be offered on campus after 1989-90) Y(0-5-1)

### **NURS 415 (3) CLINICAL STUDIES: III**

This course focuses on theories and skills necessary for population-based nursing care. Opportunities will be provided for students to participate in primary health care in health-related agencies, applying principles of teaching/learning, and program development, implementation, and evaluation. (Normally, program credit will not be granted for 415 and 410, 411.) (*Pre- or corequisite*: 307, 310) (Note: This course will be offered for the first time in 1989-90) F(3-5-1)

### **NURS 450 (1½) ADMINISTRATION IN HEALTH SERVICES**

The course examines various concepts in organization and management theory: the managerial process, the structure of organizations, and the management of conflict and change. These are discussed in relation to service organizations. (This course will normally be restricted to students in the fourth year of Nursing, and to students with at least fourth year standing in other professional programs with the permission of the Director of the School of Nursing. Students may substitute SOCW 450 with the permission of the instructor of that course.) F(3-0)

### **NURS 480 (1½) ADVANCED NURSING: COMMUNITY HEALTH NURSING PRACTICE**

The course involves in depth study and practice in some special aspect or area of community health nursing. Content will vary from year to year. Students practice individually or in groups and will meet weekly in a scheduled seminar to discuss practice issues of mutual concern. May be offered every other year, or annually as resources permit. Students are advised to consult the School before registering. To be offered first in 1989-90. (*Pre- or corequisites*: 410, and 411; or 415; or permission of the Director) S(0-5-1)

### **NURS 481 (1½) ADVANCED NURSING: CLINICAL NURSING PRACTICE**

This course involves in depth study and practice in specialized clinical areas other than community health. Content will vary from year to year. Students practice individually or in groups and will meet weekly in a scheduled seminar to discuss practice issues of mutual concern. Offered as resources permit. (Students are advised to consult the School before registering.) (*Pre- or corequisites*: 410, and 411; or 415; or permission of the Director) FS(0-5-1)

### **NURS 482 (1½) ADVANCED NURSING: ADMINISTRATION OF NURSING PRACTICE**

This course involves application of management theory through a practicum in a service agency. Students will be placed with a field guide selected on the basis of the student's interest and background. Students work individually or in groups and will meet weekly in a scheduled seminar to discuss administrative issues of mutual concern. Students are advised to consult the School before registering. Offered as resources permit. (*Pre- or corequisite*: 410, 411, and 450; or 415 and 450; or permission of the Director) FS(0-5-1)

### **NURS 483 (1½) ADVANCED NURSING: TEACHING AND LEARNING**

This course provides an opportunity for students to work in a practicum setting with an in-service educator, distance educator or health educator on the planning and delivery of one or more learning modules. Students may work individually or in groups and will meet weekly in a scheduled seminar to discuss teaching-learning issues of mutual concern. Offered as resources permit. Students are advised to consult the School before registering. (*Pre- or corequisites*: 410, 411, and 402; or 415 and 310; or permission of the Director) FS(0-5-1)

**NURS 485 (HINF 385) (1½) COMPUTER APPLICATIONS IN NURSING**

This interdisciplinary course for Nursing and Health Information Science students is designed to facilitate the exploration of the impact of information technology in relation to the nursing profession. Course content focuses on computer applications and related issues in nursing practice, nursing administration, nursing education, and nursing research.

F(3-0)

**NURS 490 (1½ or 3) DIRECTED STUDIES**

Directed readings, research projects or special studies in a specified area of interest. A proposal is developed in consultation with a faculty member and includes a plan for the evaluation of the student's work. The proposal must receive the approval of the Director before students are permitted to register. (Offered as resources permit)

## SCHOOL OF PUBLIC ADMINISTRATION

John Langford, B.A. (Carleton), M.A. (Oxon.), Ph.D. (McGill), Professor and Director of the School

Robert L. Bish, A.B. (S. Calif.), A.M., Ph.D. (Indiana), Professor

Ronald I. Cheffins, B.A., LL.B. (Brit. Col.), LL.M. (Yale), of the Bar of British Columbia, Visiting Professor (1986-88)

Desmond M. Connor, B.Sc. (Tor.), M.Sc., Ph.D. (Cornell), Adjunct Professor (1987-88)

James Cutt, M.A. (Edin.), M.A., Ph.D. (Tor.), Professor

A.R. Dobell, B.A., M.A. (Brit. Col.), Ph.D. (M.I.T.), Adjunct Professor (1986-88)

Ralph W. Huenemann, B.A. (Oberlin), M.A., Ph.D. (Harv.), Professor of Economic Relations with China

James J. McRae, B.A. (U. of Vic.), M.A., Ph.D. (W. Ont.), Professor

D. Brian Marson, B.A., M.A. (Brit. Col.), M.P.A. (Harvard), Adjunct Professor (1986-88)

Thomas K. Shoyama, B.A., B.Com. (Brit. Col.), Visiting Professor (1987-88)

Hartmut J. Will, Dipl.-Kfm (Free U., Berlin), Ph.D. (Illinois), Professor

Peter J. Adams, B.Sc., M.Sc. (Lond.), Adjunct Associate Professor (1987-88)

J. Barton Cunningham, B.A. (Brigham Young), M.P.A., Ph.D. (S. Calif.), Associate Professor

Thomas A. Lambe, B.A.Sc. (Brit. Col.) M.S., Ph.D. (Stanford), Associate Professor

Eric Lee, B.A., M.A., Ph.D. (U. of Vic.), Associate Professor

James N. MacGregor, M.A. (Glasgow), M.Sc., Ph.D. (U. of Vic.), Associate Professor

James C. McDavid, B.A., M.A. (Alta.), M.A., Ph.D. (Indiana), Associate Professor

Frank Cassidy, B.B.A. (C.C.N.Y.), M.A., Ph.D. (Stanford), Assistant Professor

Lorne M.J. Borody, B.A. (Winn.), Administrative Officer

Mark K. Loken, B.A. (Concordia Coll.), M.A. (Calgary), Ph.D. (Duke), Cooperative Education Coordinator

### GRADUATE PROGRAMS

For information on studies leading to the M.P.A. Degree, see page 231; for graduate courses, see page 246.

### UNDERGRADUATE PROGRAM

#### DIPLOMA PROGRAM IN PUBLIC SECTOR MANAGEMENT

The School of Public Administration offers a part time off campus program of studies leading to the Diploma in Public Sector Management which is available at a number of regional centres in the province. The diploma will be awarded upon successful completion of 18 units of course work with an overall grade point average of at least 2.00. The program is intended for practising or prospective managers in the public sector who wish to acquire the skills and background necessary for effective and responsible management, and who are interested in broadening their understanding of the administrative process.

#### Admission:

Courses will be taught at a level which is consistent with other third and fourth year undergraduate courses offered at the University of Victoria, and applicants will be required to demonstrate that they possess the academic proficiency necessary to benefit fully from the program. Students without a bachelor's degree will normally be expected to have the equivalent of at least the first two years of university obtained from institutions such as BCIT, the Community Colleges, or other recognized professional associations. Candidates without formal post-secondary qualifications but with demonstrable experience at senior levels of responsibility may be admitted as conditional students, with continuation in the program subject to performance in the first two courses with a grade of C or better. In addition to academic background, all applicants should have had a minimum of three years experience in dealing with issues characteristic of the public sector. A limited number of stu-

dents not formally admitted to the program may register for individual courses, with the permission of the Director of the School of Public Administration. Students should check which courses are being offered at the regional centre nearest them. Inquiries about the program should be forwarded to: The Director, School of Public Administration, University of Victoria, Box 1700, Victoria, B.C. V8W 2Y2.

#### Program of Studies:

The Diploma Program in Public Sector Management will be available on a decentralized part time study basis. Students will, therefore, be limited in their choice of courses to what is being offered in the centre nearest them. Completion of the 18 units will normally take three to four years, although some courses will be run as intensive summer institutes in residence at the University of Victoria, which will accelerate progress towards the diploma.

Students may be permitted to complete up to 4½ units of credit towards the Diploma in Public Sector Management by taking appropriate courses offered through other departments of the University of Victoria or at other universities. Prior approval must be obtained from the Director of the School of Public Administration.

Students may be granted approval to exceed 4½ units of transfer credit in cases where the credit has been (or will be) obtained for graduate level courses taught through the School of Public Administration at the University.

A typical program of studies would include:

4½ units: Core courses (310, 311, 312)

3 units: Social/Applied sciences (400, 406)

7½ units: Managerial theory (420, 421, 424, 425, 431, 437, 451, 529\*)

3 units: Policy areas (423, 466, 470, 490, other courses to be developed in the future dealing with health administration, human services administration, environment, transportation, etc.)

\* Admission to this course is subject to the regulations of the Faculty of Graduate Studies.

The Municipal Officers' Senior Certificate may be achieved by local government administrators by applying to the Board of Examiners, as established in the Municipal Act, upon successful completion of:

— four required courses (ADMN 312, 445, 452 and 465);

— four other Diploma in Public Sector Management courses; and

— relevant work experience and other qualifications as set by the Board of Examiners.

For further information concerning admission requirements to the Certificate Program, contact: the Administration/Education Officer, Municipal Administration Education Council, Ste. 100-880 Douglas St., Victoria, B.C. V8W 2B7, telephone (604) 383-7032.

### UNDERGRADUATE COURSES

#### ADMN 310 (formerly 403) (1½) PUBLIC SECTOR APPLICATIONS OF MICROECONOMIC ANALYSIS

A review of the principles of microeconomics as they apply to public sector management and decision making. The topics covered include: theories of demand, production and cost, the firm, income distribution, and welfare economics; the application of microeconomics to selected social issues such as pollution of the environment, education, health and welfare, agriculture, transportation and taxation. (Not open for credit to students who have taken or are taking ECON 300, 302 or 304A; or ADMN 503 prior to 1984)

#### ADMN 311 (formerly 404) (1½) POLITICAL ANALYSIS: CANADIAN GOVERNMENT AND POLITICS

An investigation of the political and institutional framework within which public administrators at the provincial and federal levels operate. Topics to be examined include the Constitution, federalism, Canadian political culture, the party and electoral systems, pressure groups, the legislature, cabinet government, line departments and agencies, and administrative responsibility. (Credit will not be given for both 311 and 504.)

**ADMIN 312 (1½) PRINCIPLES OF ADMINISTRATION: CONCEPTS AND PROCESS**

An investigation of the process of administration, the sequence and cycle of events that are integral to this process. In particular, the key processes of planning, organizing, implementing and evaluating will be examined.

**ADMN 400 (1½) QUANTITATIVE ANALYSIS**

The course will focus on the applications and limitations of mathematical modelling techniques to the analysis of policy problems in the public sector. Tools used in resource optimization, cost benefit analysis, financial management and statistical analysis will be presented and explained. (Credit will not be given for both 400 and 500)

**ADMN 406 (1½) ORGANIZATIONAL ANALYSIS**

An introduction to theories of individual and group behaviour in the context of complex social systems. Topics will include: the history of organization and management theory; concepts of socialization, leadership, communication, conflict, decision making, and motivation. (Credit will not be given for both 406 and 506.)

**ADMN 410 (1½) (formerly 300) THE IMPACT OF GOVERNMENT**

An introduction to the costs, benefits, and rationale behind the growth of government involvement in society. Topics will include: government intervention in the allocation of resources, stabilization policies, the impact of government on the capital markets, the 'make or buy' dilemma in government procurement; government regulatory activity, the means for determining public choice, and the social effects of welfare and environment policy.

**ADMN 415 (formerly 302) (1½) ISSUES IN PUBLIC ADMINISTRATION**

An analysis of the background and substance of current dilemmas and controversies concerning the role and practice of government administration. Topics will include: modes of public sector organization, and the formal structure of government administration in Canada; concepts of decentralization and delegation, and the relations between central agencies and line departments; decision making in the administrative process, the theory of incrementalism, and the administrator as specialist or generalist.

**ADMN 420 (1½) THE PUBLIC POLICY PROCESS**

An introduction to the policy process as it is analysed in modern theoretical literature, and as it may be examined through case studies from Canadian and non-Canadian contexts. Topics will include: policy formulation, the structural aspects of policy execution, and the human dimension of implementation and coordination.

**ADMN 421 (1½) BUDGETING AND MANAGEMENT SYSTEMS**

The focus of this course will be on the use of budgeting systems in the planning and control function of management. Topics will include phases of the financial management cycle, including forecasting and needs analysis; budgeting, internal control, evaluation, and audit. Institutional structures and operating procedures which govern the allocation and expenditure of government funds will also be examined.

**ADMN 422 (1½) THE RESPONSIBLE PUBLIC SERVANT**

Public servants at all levels often have difficulty determining what represents responsible administrative behaviour. This course will confront the students with practical examples of such difficulties and familiarize them with the constitutional, legal, moral, organizational and professional value considerations relevant to the development of appropriate personal responses. (Credit will not be given for both 422 and 519)

**ADMN 423 (1½) LOCAL GOVERNMENT**

Analysis of the legislative framework, organization, operation and finance of local government in British Columbia. (Credit will not be given for both 423 and 545.)

**ADMN 424 (1½) MANAGEMENT INFORMATION SYSTEMS**

A review of data and information processing concepts and procedures, with consideration of the costs and benefits of different information systems which can be developed to meet the informational needs of public sector managers for functions such as planning, budgeting, control and evaluation. (Credit will be given for both 424 and 524.)

**ADMN 425 (1½) LABOUR RELATIONS IN THE PUBLIC SECTOR**

An examination of the development and functioning of collective bargaining in the provincial public service. Special attention will be given to the legislation regulating bargaining, the institutions that do the bargain-

ing, determination of bargaining units, exclusions, bargainable issues, content of collective agreements, arbitration, and dispute resolution. (Credit will not be given for both 425 and 525)

**ADMN 431 (1½) PERSONNEL MANAGEMENT IN THE PUBLIC SECTOR**

The course will examine various aspects of the personnel function within government, and will compare current theory and practice in such areas as: manpower planning, recruitment, and selection; performance evaluation, compensation, benefits, and promotion; career planning, and staff development; labour relations, discipline, and control structures. Considerable emphasis will be placed on the detailed analysis of the relevant legislation. (Credit will not be given for 431 and 531.)

**ADMN 437 (1½) PUBLIC SECTOR PROGRAM EVALUATION**

An introduction to the organizational, methodological and conceptual issues that are involved in understanding how programs are evaluated. The course will focus on developing a practical understanding of the range of program evaluations conducted in the public sector. Attention is paid to effectiveness evaluation techniques as well as benefit cost applications to evaluations. (Credit will not be given for both 437 and 537.)

**ADMN 445 (1½) URBAN AND REGIONAL ECONOMICS**

Analysis of economic forces which influence spatial patterns and the relationship between spatial patterns, public services, land use planning and land use control processes. (*Prerequisites:* 310 or equivalent, or ECON 201)

**ADMN 451 (1½) ADMINISTRATIVE LAW**

An introduction to the principles of administrative law, paying particular attention to the relationship between the administrator and the public. Issues such as the requirement of fairness and natural justice in decisions affecting the public, appeals from administrative decisions, public participation in the decision making process, and political accountability and control of boards and independent agencies will be discussed. (Credit will not be given for both 451 and 551.)

**ADMN 452 (1½) LOCAL GOVERNMENT LAW**

Analysis of legislation, regulations and court decisions within which local governments in B.C. function. The presentation is designed to make nonlawyers familiar with local government law and legal processes as they apply to local government activities. (*Prerequisite:* 451 or equivalent)

**ADMN 465 (1½) LOCAL GOVERNMENT POLICY**

An integrated analysis of selected local government problems drawing on urban and regional economics, local government law and the understanding of local government structure and operations. Topics selected for examination will vary. (*Prerequisites:* 423 or equivalent, 445, 452)

**ADMN 466 (1½) PROVINCIAL GOVERNMENT POLICY AND ADMINISTRATION**

An examination of the legislative structure, cabinet committees, ministries, central agencies, and Crown corporations of the B.C. Government. Attention will be focused on the major government programs, and the administrative processes underlying the formation of public policy as well as the management systems employed in the implementation and evaluation of government programs. (Credit will not be given for both 466 and 566.)

**ADMN 470 (1½-3) CONTEMPORARY TOPICS IN ADMINISTRATION**

A study of selected topics drawn from the current literature and practices in Public Administration or related fields. Students may be permitted to enroll in ADMN 470 more than once for credit, provided the course content is different from that previously taken.

**ADMN 490 (1½) DIRECTED STUDIES**

Directed reading and/or a research project under the supervision of a Faculty Member. (Open to students only with the permission of the Director)

**GRADUATE COURSES**

(Administration 500 through 516 have graduate course credit only for M.P.A. students. All seminars 522 and above are offered subject to enrollment and the availability of faculty; not all will be offered every year.)

**ADMN 500 (1½) QUANTITATIVE ANALYSIS: I**

Application of elementary mathematical methods for analyzing decisions under uncertainty. Includes concepts of sets, functional notation,

probability theory, random variables, optimization, decision criteria and differentiation. Emphasis on examples and applications drawn from the public sector. (Entry into the course requires successful completion of MATH 012, S.P.A. Math Workshop or equivalent.)

#### **ADMN 501 (1½) QUANTITATIVE ANALYSIS: II**

An introduction to the theory and application of statistical methods to data related to decisions in the public sector, with particular regard to the Binomial, Poisson, Normal, Student's *t*, Chi-square and F distributions. The use of computer based analysis will be introduced.

#### **ADMN 503 (1½) ECONOMIC METHODS IN POLICY ANALYSIS**

A selective, accelerated review of microeconomic principles and modes of reasoning used by economists to analyze problems of resource allocation and the economic role of government in the economy. Issues in the general area of taxation, regulation, fiscal federalism, cost-benefit analysis, and social welfare programs will be investigated from an economic policy point of view. Entry into this course requires successful completion of Economics 201 or equivalent. (*Prerequisite*: 500) (NOTE: Credit will not be given for both 503 and ECON 302)

#### **ADMN 504 (1½) POLITICAL ANALYSIS**

An examination of the modes of reasoning used by political scientists to analyze the political and institutional framework within which public administrators operate. Illustrative material will be drawn largely from Canadian federal and provincial systems. (NOTE: cannot be taken for credit in addition to POLI 470)

#### **ADMN 507 (1½) MANAGEMENT AND ORGANIZATIONAL BEHAVIOUR**

This course will consider the nature of managerial work; managerial skills for improving employee performance; the nature of authority and leadership; conflict; motivation; decision making; planning; control and structuring of organizational activity.

#### **ADMN 510 (1½) LAW AND ADMINISTRATION**

An examination of the legal framework for administration topics will include: the Constitutions of Canada and B.C., the Charter of Rights and Freedoms, the division of powers in a federal system, the Supremacy of Parliament, delegation of power, legislative drafting and interpretation, the role of the Courts, legal mechanisms for enforcement and remedy and administrative law.

#### **ADMN 512 (1½) INTRODUCTION TO ACCOUNTING AND FINANCIAL MANAGEMENT IN THE PUBLIC SECTOR**

An introduction to financial and cost accounting in the public sector: the nature of financial statements, the classification of transactions and the derivation of financial statements, the analysis of financial statements, valuation theory and the alternatives to historical cost accounting. (*Prerequisite*: Algebra 12)

#### **ADMN 514 (1½) RESEARCH METHODS**

An introduction to the range of skills necessary to conduct applied research in the public sector. The course covers the design of research projects, measurement issues, sampling, qualitative research methods, data coding, and includes an introduction to the use of computing techniques to process research information.

#### **ADMN 516 (1½) WRITTEN COMMUNICATIONS**

Advanced skills in written and oral presentation of material for public sector analysis and decision making. Preparation of briefing notes, discussion papers, Cabinet memoranda, Treasury Board submissions, interministry and intraministry correspondence, speeches, and press releases.

#### **ADMN 519 (1½) SEMINAR IN RESPONSIBLE ADMINISTRATIVE BEHAVIOUR**

An examination of various value and rule systems which affect the role and conduct of public servants, and the interplay of these systems in decision making situations. (*Prerequisites*: 500 through 516)

#### **ADMN 520 (1½) MANAGEMENT AND POLICY SEMINAR**

A seminar designed to apply the skills and knowledge acquired in the MPA program to practical questions of public policy analysis and management. (*Prerequisites*: 500 through 516)

#### **ADMN 522 (1½) SEMINAR ON PUBLIC TRANSPORTATION ISSUES**

This course investigates policy questions related to the technical, eco-

nomical and political aspects of the major transportation systems in Canada.

#### **ADMN 523 (1½) CONTEMPORARY TOPICS IN ADMINISTRATION**

A study of selected topics drawn from the current literature in Public Administration or related fields. Students may be permitted to take Administration 523 more than once for credit, provided the course content is different from that previously taken.

#### **ADMN 524 (1½) INFORMATION SYSTEMS MANAGEMENT**

This course focuses on management and user issues. Topics will include conceptual foundations, structure and technology of Management Information Systems, MIS administration, analysis, design, implementation and resource management. (*Prerequisite*: 507)

#### **ADMN 525 (1½) LABOUR RELATIONS AND COLLECTIVE BARGAINING**

Familiarization with the problems and procedures encountered in collective bargaining in the public sector. Among the topics covered are: management's rights, bargainable issues, dispute resolution, arbitration, behaviour in negotiation and contract administration. (*Prerequisite*: 510)

#### **ADMN 526 (1½) INFORMATION TECHNOLOGY & MANAGEMENT**

The purpose of the course is to provide students with a variety of exposures to office automation, and with the analytical skills necessary for the selection, design, implementation and evaluation of new office systems. The course will emphasize hands on experience with software related to management, including word processing, spreadsheet, database management and graphics programs. An introduction to programming in BASIC will be provided. (*Prerequisite*: 500)

#### **ADMN 527 (1½) DECISION AND RISK ANALYSIS**

Application of decision analysis within the public sector will be considered with particular regard to the use of elementary Bayesian and cardinal utility theory. Among topics to be included are: the representation of uncertainty in terms of probability, the use of data to reduce uncertainty, the characteristics of risk aversion, the value of information, and the use of sequential decisions in data gathering and analysis.

#### **ADMN 528 (1½) PROJECT MANAGEMENT**

The coordination of manpower and equipment by governmental agencies will be analyzed in terms of project design, systems layout and simulation, work load scheduling, quality control and performance sampling.

#### **ADMN 529 (1½) ORGANIZATIONAL DEVELOPMENT**

An application of the action research approach to organizational development; workshops on conflict resolution, team building, sociotechnical design, survey feedback, process consultation. Attention will be paid to organizational diagnosis, organizational change and overcoming resistance to change. (*Prerequisite*: 507)

#### **ADMN 530 (1½) ORGANIZATIONAL THEORY AND JOB DESIGN**

The course will deal with organization and management theory, general systems theory; approaches to improving the quality of working life, job enrichment, job enhancement, industrial democracy, quality circles, alternative schedule arrangements. (*Prerequisite*: 507)

#### **ADMN 531 (1½) PERSONNEL MANAGEMENT**

This course will focus on human resource management, recruitment, selection, and training, individual and group motivation and behaviour, manpower utilization, assessment, and compensation systems, cooperation and conflict in labour management relations. (*Prerequisite*: 507)

#### **ADMN 532 (1½) THE MANAGEMENT OF CHANGE**

This course focuses on managing change in organizations, including strategies and principles of change and problems of power and conflict.

#### **ADMN 533 (1½) PUBLIC SECTOR MARKETING AND POLICY IMPLEMENTATION**

This course applies the main elements of the marketing process to public sector issues. Topics include: relationships amongst various publics; similarities and differences between public and private sector marketing; market research and segmentation; marketing mix and implementation.

#### **ADMN 535 (1½) REGULATION AND COMPETITION POLICY**

This course investigates Canada's use of competitive and regulatory instruments to govern the operation of important sectors of the economy.

Emphasis will be on the economic policy aspects of competition and regulation, but sufficient understanding of the legal and institutional underpinnings will be developed. Case studies will come from the following areas: transportation, telecommunications, energy, forestry, fisheries, agriculture, occupational and product safety, and environmental pollution. (*Prerequisite*: 503, 504, 510)

#### **ADMN 537 (1½) PROGRAM EVALUATION**

This course focuses on the design and conduct of program evaluations. Emphasis is placed on the acquisition of skills necessary to model public sector programs, design appropriate evaluations of them, measure key variables, and collect and analyze information. Students are exposed to a range of actual evaluations and are expected to design a program evaluation by the end of the course. Experience with mainframe computers is required. (*Prerequisites*: 501 and 514 or their equivalents)

#### **ADMN 540 (1½) PUBLIC SECTOR BUDGETING, ACCOUNTING AND FINANCIAL MANAGEMENT**

The application of financial budgeting, accounting and information systems concepts, practices, and techniques to financial management in public sector organizations. (*Prerequisite*: 512)

#### **ADMN 541 (1½) BUDGETING, CONTROL AND AUDITING IN THE PUBLIC SECTOR**

A detailed treatment of the various concepts and theories of public sector budgeting, control and auditing, with particular emphasis on the various levels of accountability and the range of analytical support procedures required to sustain these levels. Case studies in the Government of Canada, and in selected provincial and municipal governments. (*Prerequisite*: 512, 540)

#### **ADMN 542 (1½) COST ACCOUNTING IN THE PUBLIC SECTOR**

Alternative concepts and theories of cost; standard costs for direct material and direct labour, the control of overhead costs, absorption costing and direct costing, the analysis of variances, cost allocation, responsibility accounting, joint-product and by-product costs, capital budgeting. (*Prerequisite*: 540)

#### **ADMN 544 (1½) COST BENEFIT ANALYSIS**

A survey of the techniques of cost benefit analysis, with emphasis on the practical problems that arise in an applied context. (*Prerequisites*: 500, 501 and 503)

#### **ADMN 545 (1½) LOCAL GOVERNMENT ORGANIZATION, OPERATION AND FINANCE**

Examination of all forms of local government in relation to functions performed, decision processes, finance and relations among local governments and between local governments and the provincial and federal government. Emphasis will be placed on the relationship between structure and performance in different environments, including urban, rural and environmentally sensitive coastal areas in British Columbia. (*Prerequisites*: 503, 504, 514)

#### **ADMN 546 (1½) ISSUES IN MANAGEMENT OF LOCAL GOVERNMENT**

The examination of topics in local government management: labour-management relations, growth management, cutback management, technologies of local government service delivery, budgeting processes, land use management and planning. Some emphasis may be placed on quantitative analyses of local government related research data.

#### **ADMN 549 (1½) PROCESSES AND PROBLEMS IN THE FORMATION OF ECONOMIC POLICY**

Macroeconomic reasoning as applied to public issues, policies, and programs; the formation of monetary and fiscal policy; incomes policies;

assessment of the overall economic effects of government regulation or intervention in industrial activities; federal-provincial conflicts and interagency differences in the development of economic policy. (*Prerequisite*: ECON 303, or consent of the instructor)

#### **ADMN 551 (1½) ADMINISTRATIVE LAW**

An examination of the basic principles of administrative law, emphasizing the functioning of administrative tribunals and judicial control of administrative action. (*Prerequisite*: 510)

#### **ADMN 556 (1½) THE MACHINERY OF GOVERNMENT**

An examination of the structures, systems and processes of modern bureaucratic government at the federal and provincial levels. Topics may include the organization and management of priority setting, policy making, resource allocation, service delivery, regulation and public ownership. (*Prerequisite*: 504, 507)

#### **ADMN 563 (1½) ASPECTS OF RESEARCH DESIGN**

Problem solving in administrative contexts: the development process by which an administrative concern may be formed into a research project which is feasible, and whose findings may have administrative utility.

#### **ADMN 564 (1½) SEMINAR ON SOCIAL POLICY ISSUES**

An examination of objectives of social policy, methods of analysis, and links between analytical and administrative concerns. Topics and cases will be selected from the literature in areas such as health, education, welfare and social security, immigration, language rights, and consumer affairs.

#### **ADMN 575 (1½) COASTAL RESOURCE USE, LAW AND MANAGEMENT**

Examination of coastal resources and the decision processes through which uses are determined in British Columbia. Specific treatment of the characteristics of resources, rationing and enhancement processes, the legal framework, and the role of governments and political decision making within an integrated framework, drawing on concepts from economics, political science, geography and law. (Credit cannot be given for both 575 and Geography 555.)

#### **ADMN 577 (1½) STRATEGIC PLANNING SEMINAR**

This seminar will include an examination of the strategic planning process including the definition of organizational missions and objectives; the uses of environmental scanning; scenario building and forecasting; the development of strategy and the dynamics of implementation. Special emphasis is placed on the use of strategic planning as a practical management technique and the challenges and limitations of strategic planning processes in the public sector.

#### **ADMN 578 (1½) ADVANCED METHODS OF ANALYSIS**

This course builds upon basic research methods and quantitative skills acquired in 500, 501 and 514 or their equivalents. The course focuses on selected topics in statistical analysis, survey research methods and quasi experimental research design. Familiarity with SPSSx is required for students taking the course. (*Prerequisites*: 500, 501, 514)

#### **ADMN 590 (1½ or 3) DIRECTED STUDIES**

(May be taken more than once in different subject areas, with the permission of the Director)

#### **ADMN 593 (3) REPORT REQUIREMENT**

A substantial analysis of a significant management problem or policy issue, prepared individually in consultation with a School faculty adviser. (*Prerequisites*: 500 to 516)

(Grading: INP, COM, N or F)

## SCHOOL OF SOCIAL WORK

Marilyn J. Callahan, B.A., B.S.W., M.S.W. (Brit. Col.), Associate Professor and Director of the School  
 Andrew Armitage, B.Sc. (Lond.), B.A. (Cantab.), M.S.W. (Brit. Col.), Visiting Professor (1987-88)  
 Andrew Farquharson, B.A. (Bishop's), M.S.W. (McGill), M.Ed., Ed.D. (Tor.), Professor  
 Brian Wharf, B.A., B.S.W., M.S.W. (Brit. Col.), Ph.D. (Brandeis), Professor  
 John Cossom, B.A. (W. Ont.), B.S.W., M.S.W. (Tor.), Associate Professor  
 Wesley J. Shera, B.A. (Regina), M.A. (Calgary), Ph.D. (Penn. State), Associate Professor

Leslie Brown, B.S.W. (Regina), M.P.A. (U. of Vic.), Visiting Assistant Professor (1987-88)  
 Marjorie D. Martin, B.A., B.S.W., M.S.W. (Brit. Col.), Assistant Professor  
 David T. Turner, LL.B. (Sheffield), Dip.S.W. and Admin. (Oxon.), Assistant Professor  
 Melanie Waite, B.A. (Guelph), M.S.W. (Brit. Col.), Visiting Assistant Professor (1987-88)  
 Barbara Whittington, B.A., M.S.W. (Brit. Col.), Assistant Professor

## BACHELOR OF SOCIAL WORK PROGRAMS

The School of Social Work offers a program of studies leading to the degree of Bachelor of Social Work (B.S.W.). This program is fully accredited by the Canadian Association of Schools of Social Work.

The purpose of the B.S.W. program is to prepare students for the general practice of social work in rural communities, small towns and northern settings in Canada. This requires that graduates be skilled in working with individuals, families and small groups to resolve personal and familial troubles. It also means that graduates are expected to have an understanding of community life and a competence to intervene with a view to improving social conditions and addressing social issues. General practice in small communities also calls for a graduate who is able to cooperate with other professionals and who can recognize the potential for and promote the development of self help and mutual aid groups in resolving social problems. This program is offered on both a full and part time basis in Victoria.

The B.S.W. program is also offered on a Distance Education, part time study basis in nonmetropolitan regions of the province. The aim of this program is to allow human service workers in nonmetropolitan areas to pursue professional education in social work while continuing with employment. This also reinforces the School's emphasis on rural practice and commitment to improving the quality of social work services in rural areas.

Students admitted to the School can move between the Distance Education program courses and on campus courses.

Exceptions: (1) On campus students cannot take practica outside the designated time frame for on campus practica.

(2) On campus students cannot switch to the Distance Education program for the second term of their fourth year.

These exceptions are intended to facilitate the orderly planning of practica placements.

## ADMISSION REQUIREMENTS

Admission to this program requires completion of the first two years (30 units) of an undergraduate program at the University of Victoria with an overall average of at least second class (a grade point average of 3.50) or better, or the equivalent at another university or a community college. This will normally include 3 units of English.

Approximately 50 students will be admitted to the on campus B.S.W. program in 1988. The precise number will depend on the resources available to the School and the number of qualified applicants. Preference will be given to students who have gained experience in the social services field on a paid or volunteer basis and who have demonstrated interest in social work practice in rural areas. Selection of the group admitted to the School will be made on the basis of grades, a personal written submission and an interview.

On campus applicants are advised that a block field work placement in a rural area is required for all students. Normally not more than ten placements may be arranged in Greater Victoria each year. A student wishing to be considered for one of these placements should indicate this at the time of admission.

Students who have completed a human services training program at a college may be eligible to receive discretionary credit from the School. This is normally 6 units for each year of the program.

Up to a total of 80 students can be admitted to the Distance Education B.S.W. program. However, a minimum of two years human service work experience is also required for admission to this program in addition to the minimum of two years (30 units) of university credit.

All students are required to complete Social Work 200A and 200B or their equivalents as prerequisites for admission.

Students transferring from other postsecondary institutions must submit an application for admission to the University to the Director of Admission Services by February 28.

Returning students who are in or who have already completed second year at the University of Victoria must make an application for entry into the B.S.W. program to Records Services by February 28.

## PROGRAM REQUIREMENTS

- Candidates for the B.S.W. degree must comply with the minimum degree requirements for a Bachelor's degree outlined on page 18 of this Calendar. Particular attention is drawn to the English requirement for undergraduates as set forth on page 12 of the Calendar.
- Students admitted to the B.S.W. program with a baccalaureate degree will be granted exemption from the requirement of 3 units of electives in the third and fourth years.

- Completion of the B.S.W. degree requires 60 units of study as outlined below.
- Students in the School of Social Work must maintain a sessional grade point average of 3.50 in both third and fourth years, otherwise they may be required to withdraw from the School.
- Students are referred to page 14 of the Calendar for regulations concerning practica.

### First and Second Year:

Social Work 200A and 200B are required for entry into the B.S.W. program and are normally taken in second year. 200A and 200B are open to any student who has completed first year satisfactorily but carry credit in the Faculty of Arts and Science only as a free elective (see page 31 of the Calendar: Other Courses Outside the Faculty of Arts and Science).

Students meeting all requirements for admission except 200A and 200B can apply for conditional acceptance and enroll in 200A and 200B in Summer Studies.

A 1½ unit introductory statistics course is a prerequisite to 401, a required fourth year course. Students are strongly advised to take this statistics course prior to admission, although it may also be selected as an elective in third year. STAT 250, SOCI 371 or PSYC 300 are possible courses.

Students are required to complete either a 1½ unit course in lifespan development, or to take SOCW 355 after admission to the school.

Other courses or their equivalents which are strongly recommended to students considering admission to the school are:

SOCI 103, 203, ENGL 121, 122, 225  
and one of PSYC 335, 336, 337, 339

Other appropriate courses in first and second year are listed below. Students should consult the calendar for information regarding prerequisites. Second year students wishing to take upper level courses should consult with the appropriate department and the courses listed under Third and Fourth Year.

Appropriate first and second year courses include:

ANTH 100A, 100B, 200  
BIOC 201  
BIOL 150  
CC 200A, 200B (carry credit in the Faculty of Arts and Science only as free electives)  
C SC 100  
ECON 100, 201, 202  
ENGL 115, 116, 202, 250  
GEOG 101A/B, 102, 205A/B  
HIST 230, 234, 242  
PHIL 100, 201, 203, 211, 222A/B, 232, 233, 269  
POLI 100, 202, 210, 220, 230, 250  
PSYC 100, 240, 250, 300  
SOCI 100, 103, 202, 203, 209  
THEA 181  
WS (Women's St.) 200A/B

### Third and Fourth Year:

In the third year students will take 303, 304, 350, 352, and 1½ units of electives chosen in consultation with the Director (unless special permission is received from the Director to omit a course or courses from this group). 355 is required if a 1½ unit course in lifespan development has not been completed prior to admission. Total units: 15.

In the fourth year students will take 401, 402, 403, 450, 452, 455 and 1½ units of electives chosen in consultation with the Director (unless special permission is received from the Director to omit a course or courses from this group). Total units: 15.

Total units for Third Year and Fourth Year: 30.

Appropriate third and fourth year electives include any of the above first and second year courses and the following third and fourth year courses:

ADM 311, 466  
ANTH 322, 335, 336, 339A/B, 406, 418, 419  
CC 301  
ECON 301, 315, 321, 410A/B  
ED-B 336, 360; ED-D 406, 414  
ENGL 301, 302, 400  
ES (Environ. Studies) 300  
FHSD 400, 401 (see p.235)  
GEOG 330, 347, 349, 361A/B, 443  
HIST 344, 346A/B, 348, 349, 354B, 355, 464  
PHIL 330, 331, 333  
POLI 350, 360, 361, 404, 450, 456A, 466, 470  
PSYC 300, 331, 334A/B, 335, 336, 337, 338, 345, 350, 435, 436, 450

SOC W 355, 390, 453, 454, 460, 485, 486, 490  
 SOCI: all third and fourth year courses are recommended  
 Total Units for the program: 60.

## COURSES

Third and fourth year courses except 304 and 402 may be taken by students outside the School with the permission of the Director. 303, 350, 351, 352, 401, and 452 may be of particular interest to students in Child Care, Nursing, Law, Education, and Public Administration. Students in other faculties wishing to take these courses should consult the appropriate advising service.

(Course offering codes: Y = Sept.-Apr., F = Sept.-Dec., S = Jan.-Apr., K = May-Aug., NO = Not offered, this session)

### **SOC W 200A (1½) AN INTRODUCTION TO SOCIAL WORK PRACTICE**

An introduction to the general practice of social work with particular emphasis on practice in rural communities and with emphasis in interdisciplinary approaches and the roles of consumer and self-help groups in the helping process. This course reviews the knowledge bases and skills of social work practice, and assists students to evaluate their interests and capacities for entering the profession of social work. FS(3-0)

### **SOC W 200B (1½) AN INTRODUCTION TO SOCIAL WELFARE IN CANADA**

An introduction to and analysis of major social policies and programs in Canada. Emphasis will be given to policies in income security, corrections, health, family and children, and housing and will include an examination of the role of the social worker in formulating policy. FS(3-0)

### **SOC W 303 (3) SOCIAL WORK PRACTICE AND PLANNED CHANGE**

The objective of this course is to introduce students to the generic approach to social work practice by using major concepts and theories concerned with the planning of change. Y(1½-0-1½)

### **SOC W 304 (4½, formerly 6) SOCIAL WORK FIELD PRACTICE**

In the third year field placement, students are assigned a wide range of responsibilities at the individual, group and community level. Precise objectives will be established on a contract basis between students, faculty and the agency. (Pre- or corequisites: 303 and 352)

Y(2 days per week)

### **SOC W 350 (C C 350) (3) LAW AND SOCIAL SERVICES**

The objective is to provide students in Child Care and Social Work with an understanding of the Law as an expression of social policy and of the processes by which laws are developed, enacted and changed; Family Law and the Family Courts with special reference to laws affecting children; human rights as they apply to social services; the organization of legal services; and the legal accountability and liabilities of social workers, child care workers and others in the social services field. (Pre-requisite: Third year standing or instructor permission only) Y(1½-0-1½)

### **SOC W 352 (3) INTERPERSONAL COMMUNICATION**

This course has a number of interrelated objectives: to introduce students to the literature on interpersonal communication; to afford an opportunity for a critical review of various approaches to interpersonal helping; to assist students in developing a personal commitment to, and philosophy of, the art of interpersonal helping; and to involve students in simulated practice experiences. Y(1-0-2)

### **SOC W 355 (formerly half of 351) (1½) HUMAN DEVELOPMENT**

The objectives of this course are to: (1) introduce students to concepts and models of how human behaviour is acquired, maintained and modified, and (2) develop an understanding of normal human development as a knowledge base for practice with individuals, families and groups in a rural context. S(3-0)

### **SOC W 390 (1½ or 3) DIRECTED STUDIES**

Students must consult with the Director prior to registration. The intent is to allow students the opportunity to concentrate in a particular field of social welfare such as corrections, gerontology or mental health.

### **SOC W 401 (1½) THE RESEARCH PRACTITIONER IN THE HUMAN SERVICES**

The objectives of this course are that the students will be able to: define research practitioner; understand the different ways of gaining knowledge; understand the use of descriptive, associative and inferential statis-

tics in data analysis; apply research and evaluation studies. (This course is normally taken as part of the fourth year social work.) (Available to other students with permission of the instructor.) (Pre-requisite: A 1½ unit introductory statistics course, such as STAT 250, or SOCI 371)

F(3-0)

### **SOC W 402 (6) SOCIAL WORK FIELD PRACTICE**

The intent of this course is to refine intervention skills at the individual, family, group and community level. Precise objectives will be established on a contract basis between students, faculty and the agency. Entry into this course will be restricted to fourth year students in the School of Social Work. (Pre-requisite: 304; corequisite: 403, except for students in the decentralized program)

### **SOC W 403 (1½) GENERALIST SOCIAL WORK PRACTICE**

This course has the objectives of (a) strengthening the students' understanding of generalist social work practice and problem solving approaches, (b) heightening the students' ability to recognize and grapple with ethical dilemmas, and (c) providing students with an opportunity to think critically about their own conceptual and philosophical or orientation to social work practice. (This course is only offered in distance education format.) (Pre- or corequisite: SOC W 402 or instructor permission)

S(3-0)

### **SOC W 450 (1½) UNDERSTANDING HUMAN SERVICE ORGANIZATIONS**

The objective of this course is to provide students with an understanding of the components and dynamics of human service organizations so that they may practise more effectively within these organizations and participate in their development and change. (This course will normally be restricted to students in the fourth year of social work and to students with at least fourth year standing in other professional programs with the permission of the instructor.) (Students may take NURS 450 instead of this course, with the permission of the nursing instructor.) F(3-0)

### **SOC W 452 (1½, formerly 3) EDUCATIONAL STRATEGIES IN SOCIAL WORK: CONTENT AND PROCESS**

This course focuses on the use of adult education as a strategy for individual and social change. The course uses the medium of student presented workshops, to achieve its objective of developing skills and knowledge for planning and delivery of educational programs. (May be taken once only for credit) (Entry into this course is normally restricted to fourth year students in the School of Social Work and to students with at least fourth year standing in other professional programs with the permission of the Director of the School of Social Work.) (3-0)

### **SOC W 453 (1½) POLICY IN THE HUMAN SERVICES**

The principal objectives of the course are to provide an introduction to the policy making process, and to develop skills in the analysis of policies in the human services. This elective is intended for fourth year students in the Faculty of Human and Social Development. (Offered as resources permit) F(3-0)

### **SOC W 454 (1½) HUMAN SERVICES AND NATIVE PEOPLE**

The course will critically examine a variety of intervention strategies and their appropriateness for working with native Indian people. The strategies will include counselling on an individual, family and group basis, self help groups and community development. (Offered as resources permit) S(3-0)

### **SOC W 455 (formerly half of 351) (1½) THE RURAL COMMUNITY**

The objectives of this course are to: (1) analyze rural community structures and problems, (2) understand the delivery of human services in rural communities, and (3) review approaches to community work practice. F(3-0)

### **SOC W 460 (1½) SPECIAL TOPICS IN SOCIAL WORK AND SOCIAL WELFARE**

This is a variable content course that will deal with special issues in social welfare and approaches to social work practice. Restricted to students in the third or fourth year of study. May be taken more than once for credit to a maximum of three units. (Offered as resources permit) FS(3-0)

### **SOC W 485 (C C 485) (1½) SYSTEMS APPROACH TO THE FAMILY: I**

This course focuses on family systems theory and the application of systems constructs in working with the child in the context of the family.

F(3-0)

**SOC W 486 (CC 486) (1½) SYSTEMS APPROACH TO THE FAMILY: II**

This course provides a laboratory learning environment which allows the students to observe, demonstrate and discuss family systems theory, constructs and interventions.

F(3-0)

**SOC W 490 (1½ or 3) DIRECTED STUDIES**

Students must consult with the Director prior to registration. The intent is to allow students the opportunity to concentrate in a particular field of social welfare such as corrections, gerontology or mental health.

# FACULTY OF LAW

William A.W. Neilson, B.Com. (Tor.), LL.B. (Brit. Col.), LL.M. (Harvard), of the Bars of British Columbia and Ontario, Professor and Dean of the Faculty

Gerard A. Ferguson, B.A. (St. Patrick's), LL.B. (Ottawa), LL.M. (New York), of the Bar of Ontario, Professor and Associate Dean

William R. McIntyre, LL.B. (Sask.), Honorary Professor

Keith B. Jobson, B.A., B.Ed. (Sask.), LL.B. (Dalhousie), LL.M., J.S.D. (Columbia), of the Bar of British Columbia, Professor

Douglas M. Johnston, M.A., LL.B. (St. Andrews), M.C.L. (McGill), LL.M., J.S.D. (Yale), Professor and Chair in Asia Pacific Legal Relations

John P.S. McLaren, LL.B. (St. Andrews), LL.M. (London), LL.M. (Mich.), of the Bar of Ontario, Lansdowne Professor of Law

Lyman R. Robinson, Q.C., B.A., LL.B. (Sask.), LL.M. (Harvard), of the Bar of British Columbia, Professor

Brian R.D. Smith, Q.C., B.A. (Brit. Col.), M.A. (Queen's), LL.B. (Brit. Col.), Adjunct Professor (1986-88)

Donovan W.M. Waters, B.A., B.C.L., M.A. (Oxon.), Ph.D. (London), F.R.S.C., Barrister-at-Law, Lincoln's Inn and the Bar of British Columbia, Professor

David R. Williams, Q.C., B.A., LL.B. (Brit. Col.), of the Bar of British Columbia, Adjunct Professor (1986-88)

Terry J. Wuester, B.A. (Bethany Nazarene Coll.), M.A. (Missouri), J.D. (Kansas), LL.M. (Yale), of the Bars of British Columbia, Saskatchewan and Kansas, Professor

Richard M. Brown, LL.B. (Queen's), LL.M. (Harvard), Associate Professor

James L. Cassels, B.A. (Carleton), LL.B. (W. Ont.), LL.M. (Columbia), Associate Professor

Donald G. Casswell, B.Sc. (Tor.), LL.B. (York), LL.M. (Tor.), of the Bar of Ontario, Associate Professor

John N. Davis, LL.B. (Tor.), M.L.S. (W. Ont.), Associate Professor

Hamar Foster, B.A. (Queen's), M.A. (Sussex), LL.B. (Brit. Col.), of the Bar of British Columbia, Associate Professor

Robert G. Howell, LL.B. (Well.), LL.M. (Illinois), of the Bar of New Zealand, Associate Professor

Maureen A. Maloney, LL.B. (Warwick), LL.M. (Tor.), Associate Professor

Sandra K. McCallum, B. Juris, LL.B. (Monash), LL.M. (Brit. Col.), of Bar of British Columbia, Associate Professor

R.M. John Orr, B.A., LL.B. (Brit. Col.), Dip. International Law (Cantab.), of the Bar of British Columbia, Visiting Associate Professor — Faculty Director, Clinical Program (1987-88)

Andrew J. Pirie, B.A. (Waterloo), LL.B. (Dalhousie), LL.M. (Well.), of the Bar of Ontario, Associate Professor

T. Murray Rankin, B.A. (Queen's), LL.B. (Tor.), LL.M. (Harvard), of the Bar of British Columbia, Associate Professor

Mary Anne Waldron, B.A. (Brandon), LL.B. (Man.), LL.M. (Brit. Col.), of the Bar of British Columbia, Associate Professor

Mark R. Gillen, B.Com. (Tor.), M.B.A., LL.B. (York), LL.M. (Tor.), Assistant Professor

John R. Kilcoyne, LL.B. (U. of Vic.), LL.M. (York), of the Bar of British Columbia, Assistant Professor

Theodore McDorman, B.A. (Tor.), LL.B., LL.M. (Dalhousie), of the Bar of Nova Scotia, Visiting Assistant Professor (1987-89)

Andrew J. Petter, LL.B. (U. of Vic.), LL.M. (Cantab.), of the Bar of Saskatchewan, Assistant Professor

Richard A. Rennie, C.D., B.Comm. (Brit. Col.), LL.B. (U. of Vic.), M.P.A. (Carleton), of the Bar of British Columbia, Administrative Assistant; Admissions/Records Officer

The Faculty of Law offers a three year program leading to the Bachelor of Laws (LL.B) degree. The Faculty has been granted the status of 'an approved law school' by the governing bodies of the legal profession in the various common law provinces. This accords the Bachelor of Laws degree of the University of Victoria the same status as that of other common law schools in Canada.

## APPLICATION FOR ADMISSION

Application forms for first admission to the University or for re-registration, and application packages for admission to the Faculty of

Law are available from the office of the Dean. All applications must be submitted by March 31. However, applicants for first admission in the Regular category are strongly recommended to submit applications by December 31 of the preceding year as offers will be made during the months January through March of the year of Admission.

## REQUIREMENTS FOR ADMISSION TO THE FIRST YEAR PROGRAM

### Regular Applicants

The Faculty of Law may admit a candidate who:

1. presents proof of having received, with standing satisfactory to the Faculty of Law, a degree from the University of Victoria or an equivalent degree from a recognized university; or
2. presents proof of having completed, with standing satisfactory to the Faculty of Law, at least the first three years (forty-five units) of a program leading to a degree at the University of Victoria, or the equivalent at a recognized university.

In addition, each applicant must submit a Law School Admission Test score and satisfy such other requirements as may be prescribed from time to time.

NOTE: Since the number of candidates who meet the minimum requirements for eligibility far exceeds the number of places available, it should be understood that eligibility does not guarantee admission. Admission is decided on a competitive basis taking into account, principally, a candidate's prelaw academic record and Law School Admission Test scores.

### Mature Applicants

A limited number of Mature Applicants will be accepted for admission in any one year notwithstanding that they do not possess the minimum requirements for admission as Regular Applicants. This category is not open to applicants who have met the requirements for admission in the Regular Applicant category.

Applications will be considered from individuals who:

- (a) are residents of British Columbia, the Yukon or Northwest Territories;
- (b) are 26 years of age or older;
- (c) do not possess the minimum requirements for admission as Regular Applicants; and,
- (d) have five or more years of work experience.

Applicants will be selected for admission on the basis of:

- (a) the academic record, and the ability of the applicant to handle college or university level studies and to be successful in the study of law;
- (b) the competence of the applicant in reading, writing, speaking and the ability to reason and analyze;
- (c) the work record, including the capacity and ability to make a disciplined effort over periods of time;
- (d) the potential of the applicant to make a contribution to the legal profession and the community; and,
- (e) the Law School Admission Test scores.

Applicants will be required to submit letters of reference; an interview may be required.

### Special Applicants

A limited number of Special Applicants will be accepted for admission in any one year from applicants who possess the minimum academic requirements for Regular Applicants and who, by virtue of their experience and background, may be expected to make a particular contribution to the public or interdisciplinary aspects of law.

Applications will be considered from individuals who:

- (a) are residents of British Columbia, the Yukon or Northwest Territories;
- (b) are 26 years of age or older;
- (c) possess the minimum academic requirements for admission as Regular Applicants; and,

(d) have five or more years work experience in a profession or other field of endeavour.

Applicants will be selected for admission on the basis of:

- the academic record, and the ability of the applicant to be successful in the study of law;
- the capacity of the applicant to make a special contribution to the law and the legal profession through public law or its interdisciplinary aspects; and,
- the Law School Admission Test scores.

#### Native Applicants

The Faculty of Law is anxious that the number of people of Indian, Metis and Inuit backgrounds among the ranks of the legal profession increase substantially and, accordingly, encourages inquiries and applications from Native people.

Applications from Canadian Native people will be considered on an individual basis taking into account such factors as academic performance, results of the Law School Admission Test, employment history, potential for personal growth, personal interviews and letters of reference.

If an applicant's academic background makes it appropriate, the Admissions Committee may make any offer of admission conditional upon successful completion of the Program of Legal Studies for Native People conducted by the Native Law Centre at the University of Saskatchewan. The Faculty fully endorses this 'head start' program, and considerable weight is placed upon the evaluation submitted by its Director. It should be noted that all Native applicants of registered status and a limited number of nonstatus Native or Metis applicants are eligible for governmental financial assistance throughout both the Saskatchewan program and the LL.B. program at a Canadian Law School. This will cover tuition fees, books and other classroom materials, plus a modest living allowance. For more complete information concerning the Program of Legal Studies for Native People, interested applicants should write to:

The Director  
Program of Legal Studies for Native People  
Native Law Centre  
University of Saskatchewan  
Saskatoon, Saskatchewan  
Canada S7N 0W0

#### Part Time Students

A limited number of students will be considered for admission in any one year from applicants who meet the admission criteria and admission standards of full time applicants in the Regular Applicant, Mature Applicant, Special Applicant and Native Applicant admission categories and who demonstrate to the satisfaction of the Faculty that they are unable to attend on a full time basis because of health or physical disability, or exceptional family or financial hardship.

## TRANSFER AND VISITING STUDENTS

Applications may be considered from students who wish to attend the Faculty of Law of the University of Victoria as Transfer Students or as Visiting Students. The Faculty of Law is not obliged to accept applications from students in these categories. The number of applications which are accepted will be limited in order to ensure that the size of the class which these students will be entering is not significantly altered.

#### A. Transfer Student Applications

Applicants who seek to transfer to the Faculty of Law must complete a minimum of two years of legal education in the Faculty of Law in order to obtain a Bachelor of Laws degree from the University of Victoria.

Applications shall be accompanied by:

- The academic record of the applicant, and
- The applicant's reasons and motivation for seeking to transfer to the Faculty of Law of the University of Victoria;

and will be considered if:

- The applicant meets all of the eligibility requirements for admission to the First Year Program of the Faculty of Law, and
- The law courses which have been completed by the applicant are compatible with the curriculum of the Faculty of Law.

Preference will be given to students who are academically outstanding or who have the potential to make a unique contribution to the academic program of the Faculty of Law and to students who have applied on compassionate grounds. Students who have undertaken their previous legal education at a Canadian Law School will be given pref-

erence over applicants whose previous legal training has been undertaken outside Canada.

#### B. Visiting Students (Students with a Letter of Permission)

Applications from Visiting Students from another University may be accepted subject to the discretion of the Dean and their course programs being approved by the Deans of both Law Schools.

## REGISTRATION

Inquiries relating to registration in the Faculty of Law should be addressed to the Administrative Assistant to the Dean of the Faculty of Law. The mailing address is: Faculty of Law  
University of Victoria  
P.O. Box 2400  
Victoria, B.C.  
V8W 3H7

#### Completion of Registration

In addition to completing the procedures mentioned under the heading Requirements for Admission, all students are required to register at the times announced by the Faculty of Law. All new students, by their Letter of Admission and all returning students, by their Authorization to Reregister, will be informed of the time and place for registration. Students registering in the first year of the program are required to register in person.

All Letters of Admission or Authorizations to Reregister that are not used to register in the term or session to which they apply, have no further validity.

#### Registration in Any Course is Not Confirmed Until:

- all course prerequisites have been met;
- the required registration procedures have been completed;
- all required fees have been paid (see Payment of Accounts, page 19); and
- classes in the course have begun and the student is in attendance.

The Faculty reserves the right to cancel the registration in a course of any student who fails to attend that course within seven calendar days of the commencement of the term, or of any student who is not able to demonstrate that all course prerequisites have been met.

A student who for medical or compassionate reasons is unable to attend a course during the first seven calendar days of the term may apply to the Dean within that time to confirm registration in that course and the Dean may confirm the registration.

#### Student Responsibility:

Students are responsible for ensuring that their courses have been chosen in conformity with Calendar regulations. Also, all students are responsible for the completeness and accuracy of their registration. They must ensure that there is no discrepancy between the program they are following and the approved program recorded in the Dean's Office of the Faculty of Law, and that all changes in address and telephone number, are reported promptly to the Dean's Office of the Faculty which in turn will notify Records Services. Students may not take courses for which they have not registered, and may not drop courses without permission. Students who register in a course for which they have previously received credit or for which they have received equivalent credit on transfer, must indicate this by entering DUP (duplicate) on their registration forms.

A letter mailed to a student's address as currently on record in the Dean's Office of the Faculty of Law or Records Services will be deemed adequate notification to the student for all matters concerning the University.

#### Late Registration:

The period for late registration in the Winter Session is the first five days of classes; in the Summer Studies, the first two days of classes.

#### Registration For Both Terms in Winter Session:

Students planning to undertake studies in both terms of the Winter Session must register in September for all courses they intend to take, including single term courses beginning in January.

#### Changes in Registration:

- Students may add and drop courses during the first eight days of law classes in the First Term and during the first eight days of the Second Term upon submission of the appropriate change form to the Dean's Office of the Faculty of Law which in turn will notify Records Services.
- Students may drop First Term courses until the last day of classes in October and Full Year and Second Term courses until the last day of

classes in February provided that the student's program still meets the requirements of Regulations 4 and 5 pertaining to an approved program and provided they submit the academic change form to the Dean's Office which in turn will notify Records Services. Failure to notify the Faculty of Law by the specified date will result in the student receiving a failing grade for the courses.

3. Any student, who after registration decides to drop all courses, is withdrawing from the University and must notify the Dean's Office of the Faculty of Law in writing, which will in turn notify Records Services.

#### Concurrent Registration in Courses at Other Faculties of Law

With the approval of the Dean, or the Dean's nominee, students are permitted to register in a course(s) in the Faculty of Law at the University of British Columbia concurrently while enrolled in the Faculty of Law at the University of Victoria. Courses satisfactorily completed at the University of British Columbia will be granted credit towards their degree at the University of Victoria.

#### Temporary Withdrawal and Reregistration

Upon successful completion of an academic year and/or term, a student may on a single occasion elect not to continue in the LL.B. program for a single period not exceeding two academic years. With the permission of the Dean and/or Faculty, a student may be permitted to reenroll in either the First or Second Term of the Winter Session after such a stop out within the two year period. A student who does not reenroll in the LL.B. program within two academic years must reapply for admission to the Faculty.

When a student stops out after completing the First Term of Winter Session, the Regulations which are normally applicable to an academic year, including regulations for achieving standing in a year, shall be applied to a program consisting of the term completed prior to stopping out and the next term which the student completed after reenrollment.

If the student is enrolled in a course which spans both the first and second terms, the student will not be permitted to withdraw and retain credit unless the student has completed courses in the First Term which are worth at least 7 units. In no case may a student retain partial credit for a full year course which has not been fully completed.

When a student stops out after the completion of an academic year and the student reenrolls in the Second Term of Winter Session, regulations which are normally applicable to an academic year including regulations for achieving standing in a year, shall be applied to a program consisting of the term completed prior to stopping out and the next term which the student completed after reenrollment.

#### Registration in the Common Law-Civil Law Exchange Program

Students registering in and successfully completing the Civil Law/Common Law Summer Exchange Program may receive 2 units of credit towards their Law Program at the University of Victoria upon submission of official documentation confirming successful completion of the program. This credit will be applied to the year immediately following the completion of the Summer Program.

## GENERAL INFORMATION

### 1. Academic Studies

The academic session in the Faculty of Law extends for approximately thirty effective teaching weeks exclusive of examination periods.

### 2. Grading

	Grade	Grade Point Value	
Passing Grades	A+	9	First Class
	A	8	
	A-	7	
	B+	6	Second Class
	B	5	
	B-	4	
	Failing Grades	C+	3
C		2	
D		1	Complete (pass)
*COM		N/A	
*N		0	
*DEF	N/A	Deferred examination granted	

\* COM — Used only for courses designated by the Senate. Such courses are identified in the course listings.

\* N — In exceptional circumstances, the Faculty may authorize the removal of an N grade and the replacement of it by another grade. In accordance with Senate Regulations, an instructor shall advise students at the beginning of term of the circumstances under which they would be assigned a final grade of N.

\* DEF — Used only for courses in which a deferred examination has been granted because of illness or other special circumstances.

### 3. Review of an Assigned Grade

Students are referred to the general University regulations given on page 17 and to the regulations adopted by the Faculty of Law. The following regulations apply to students in the Faculty of Law.

(a) Any request for a review of a final grade must normally reach the Dean's office within 21 days after the release of grades by the Dean's Office.

(b) Where a final grade is based wholly or in part on any written materials other than an examination paper, such materials shall, for the purpose of these procedures, be treated as if they are examination papers.

### 4. First Year Program

All courses in the First Year Program are compulsory.

Full time students must enroll in all courses in the First Year Program.

In the first academic year of attendance, part time students must enroll in courses amounting to not less than 7 units of courses including 104 (2) The Law, Legislation, and Policy; 106 (1) Legal Process; and 110 (1) Legal Research and Writing. In the second academic year of attendance, part time students must complete the remainder of the compulsory First Year program.

### 5. Second and Third Year Programs

(a) The Faculty of Law may designate courses as compulsory, prerequisite, or recommended courses.

(b) In each of the second and third years of the program, a student shall enroll in a course program which has been approved by the Dean or his nominee.

(c) An approved program for a full time student under paragraph (b) is one in which a student is enrolled in courses totalling not less than 14½ units and not more than 16½ units over the academic session (that is, during the thirty week period). An approved program for a part time student under paragraph (b) is one in which a student is enrolled in courses totalling not less than 7 units and not more than 14½ units, over the academic session (that is, during the thirty week period).

(d) Without the permission of the Dean or his nominee, a full time student may not carry less than 7 units or more than 8½ units in one term per session (that is, during the fifteen week period). Without the permission of the Dean or his nominee, a part time student may not carry less than 3 units or more than 7 units in one term per session (that is, during the fifteen week period).

(e) In order to complete the requirements of the Program, a student must enroll in approved programs for the Second and Third Year which amount in the aggregate to not less than 29 units.

### 6. Standing

(a) Standing in First, Second or Third Year shall be granted when,

(i) a student passes all of the courses in the student's approved program for the year and does not have any N or DEF grades in any course, and,

(ii) a student obtains a grade point average of at least 3.00 in the courses not graded on a pass/fail (COM, N, or F) basis.

In addition to satisfying the requirements of the preceding paragraph part time students in Second Year or Third Year must satisfy the following requirements at the end of each academic session. In order to proceed to the next academic session a part time student must pass all of the courses in the student's approved program for the academic session and attain a grade point average of at least 3.00 in the courses for the academic session.

(b) Standing in the Program shall be granted when a student achieves Standing in each of the First, Second and Third Years and completes a research paper on an approved subject of not less than 7,500 words during either the Second or Third Year upon which the student has received a grade of C+ or better. The requirement may be satisfied in the context of existing courses.

## 7. Supplemental Examinations

- (a) Where a full time student does not achieve standing under Regulation 6 above, but attains a grade point average of at least 2.00, the student shall be permitted to write supplemental examinations in not more than
- i) two courses (including Private Law Process), or
  - ii) two separate components of Private Law Process, or
  - iii) one course (except Private Law Process) and one component of Private Law Process

representing not more than six units, in order to obtain the standing required. Where a part time student does not achieve standing or satisfy the requirements under Regulation 6 above, but attains a grade point average of at least 2.00 the student shall be permitted to write one supplemental examination.

- (b) Where a student, enrolled in a clinical program or other course exclusively for a term (15 weeks), fails to meet the grade requirement of Regulation 6, the matter shall be referred to the Faculty or a committee thereof. The Faculty, after considering the recommendation of any committee to which the matter has been referred may confirm the failing grade or may permit the student to undertake any one or more of the following:
- (i) supplemental examinations,
  - (ii) the completion of such assignments, papers or tests as may be appropriate, or
  - (iii) remedial work designated by the Faculty.

Where, in the opinion of the Faculty, the student's conduct or lack of competence in the clinical program or course may adversely affect members of the public or personnel including students associated with the program or course, the Faculty may prohibit the student from re-enrolling in the program or course or the Faculty may require the student to withdraw from the Faculty.

- (c) Subject to paragraph (d), supplemental examinations shall not be written in courses or Private Law Process components where a student has attained a grade of C+ or better.
- (d) If a student elects to write a supplemental examination in the Private Law Process course, the student shall write all three components whether or not a grade of C+ or better has been obtained in one or more components. However, an overall grade of C+ or better in the Private Law Process course shall not bar a student from electing to write a supplemental examination in a separate component of Private Law Process where the student has not obtained a C+ or better.
- (e) The grade point value for supplemental examinations shall be determined in accordance with the grading scale contained in the Regulations of the Faculty of Law. The original sessional grade point average and a revised sessional grade point average, taking into account the supplemental examination results, shall be recorded on a student's transcript.

## 8. Special Examinations

- (a) Subject to subsections (b) and (c), the Faculty may authorize the writing of Special Examinations to achieve standing under Regulation 6 where the Faculty determines that a student's ability to write or to complete an examination or other academic requirement has been affected by illness, family affliction or other special circumstances.
- (b) A request for a Special Examination under subsection (a) must be made in writing to the Dean within five days after the date on which the original examination was written or was to be written, or within five days after the date on which the other academic requirement was due, and the student must provide a physician's report or other substantiating document as soon as possible.
- (c) For the purposes of providing evidence to the Faculty as to the nature of the illness and the effect of that illness upon the student's ability to complete an examination or other academic requirement, the physician's medical report should be made on the form approved by the Faculty of Law for that purpose wherever possible. Where the form provided by the Faculty of Law is not used, the medical report should contain the kinds of information sought on that form.
- (d) Where a student has written an examination, a request for a Special Examination under (b) shall be confirmed or withdrawn by the student within ten days after marks have been released by the Dean's Office. Where the request is not confirmed within that ten day period, it shall be deemed to have been withdrawn.
- (e) Special Examinations for the year are normally written in early August.
- (f) Students will be advised in writing with respect to procedures to be followed in such cases.

- (g) The mark obtained on a Special Examination or other academic requirement written pursuant to this regulation will replace only the mark the student had or would have had on that component of the course.

## 9. Credit for Courses Outside the Faculty

- (a) A student may, in the second and third year, take courses in other departments and schools in the University, but not Summer Studies courses, for credit in the Faculty of Law;
- (b) A student may take up to 3 units of such courses over the two academic years;
- (c) A student must obtain the approval of the Dean of Law or his nominee and the outside instructor in advance of registration for any such course. The approval of the Dean or his nominee is based upon criteria set out in Faculty regulations.

## 10. Repetition of a Year

A student who fails to obtain standing in any Year may apply to the Faculty for permission to repeat the Year.

## 11. Special Provision

Notwithstanding anything contained in these regulations, the Faculty shall exercise an equitable discretion in a particular case so as to achieve a fair and reasonable result.

## 12. Other Academic Regulations

Students registered in the Faculty are subject to such other general academic regulations of the University as the Senate, on the recommendation of the Faculty, may wish to apply.

## 13. Part Time Students

A student who is admitted as a part time student may not become a full time student until the student has achieved standing in First Year.

In order to continue as a part time student after achieving standing in First Year, a student is obliged to demonstrate to the Faculty at the beginning of each academic session that he continues to be unable to attend on a full time basis because of health or physical disability, or exceptional family or financial hardship.

A student who achieved standing in First Year as a full time student, may apply to continue his studies as a part time student. The Faculty may allow a limited number of these students to enroll as part time students upon being satisfied that a student is unable to continue as a full time student because of health or physical disability, or family or financial hardship.

## 14. Temporary Withdrawal of Students Enrolled in Law Centre Clinical Program Pending Report

Where, during the course of a term, there are reasonable grounds to believe that the conduct or lack of competence of a law student enrolled in the Law Centre Clinical Program has adversely affected or may adversely affect,

- (i) clients of the Law Centre,
- (ii) personnel including students associated with the Law Centre,
- (iii) the Law Centre's relationship with the judiciary or members of the practising bar,

The Dean may require a student to withdraw temporarily from the Law Centre Clinical Program pending the receipt of a report on the conduct and lack of competence of the student.

## 15. Faculty May Require Student to Withdraw from Law Centre

After giving the student an opportunity to be heard, the Faculty may require a student to withdraw from the Law Centre Clinical Program where the Faculty is satisfied that the student's conduct or lack of competence may adversely affect members of any of the groups identified in Regulation 14.

## 16. Grade of N in Law Centre Clinical Program

Where the Faculty requires a student to withdraw from the Law Centre Clinical Program, a grade of N shall be entered on the student's academic record and transcript.

## COURSES

Students should consult the Faculty concerning courses to be offered in any particular year.

## LAW 100 (3) THE CONSTITUTIONAL LAW PROCESS

This course deals with the basic framework of the Canadian constitutional system and illustrates that the constitution is the skeletal frame-

work within which the legal system functions. The function of a constitution, the main characteristics of constitutions and Constitutional Law, entrenchment, amendment, the nature and structure of the B.N.A. Act, the division of powers, concurrency in a federal state, the sources of Canadian Constitutional Law, executive power, legislative authority, delegation, the role of the judiciary, civil liberties, developing issues in Constitutional Law. (Full year course 75 hours)

#### **LAW 102 (2) THE CRIMINAL LAW PROCESS**

The course is an introduction to Criminal Law and its process as a means of sanctioning prohibited conduct. Attention is directed to the following matters:

1. The reporting of crime including some discussion of the common characteristics of offenders and offences.
2. The role of the police and the prosecutor in the pretrial portion of the process including such matters as arrest, search and seizure, and the discovery of evidence.
3. The aims and purposes of the Criminal Law and the role of the lawyer in the Criminal Law process.
4. The substantive Criminal Law including the ingredients of criminal offences and the application of the various defences which are available.
5. Theories of punishment and practices of disposition and sentencing of offenders.

Students may be asked to spend up to ten hours in a field experience either in the courts, with police, or in corrections. Students are required to keep a journal in connection with this part of the course.

(Full year course 60 hours)

#### **LAW 104 (2) THE LAW, LEGISLATION AND POLICY**

Students are given an historical introduction to the doctrine of parliamentary sovereignty and an overview of the development of responsible government at the Provincial and Federal levels. The course examines judicial approaches to statutory interpretation including the canons, rules and presumptions and introduces students to the development of elementary legislative drafting skills. The preparliamentary stages of legislation, the institutions involved in law making and the sources of policy in both federal and provincial governments will be studied. The parliamentary stages of legislation and some aspects of parliamentary procedure will be examined together with criticisms of the parliamentary system and proposals for reform. (Full year course 60 hours)

#### **LAW 106 (1) THE LEGAL PROCESS**

The Legal Process seeks a perspective of the processes of decision making throughout the legal system by examining its major institutions and the function of substantive and procedural law within them. It attempts to provide first year students with a transactional "overview" of their new discipline in its totality. It also provides a background for courses in the second and third year program. This course introduces students to the institutional structure of the Canadian legal system and, at the same time, provides an analysis of the role of law in society. The course will have a variety of components, namely historical, institutional, procedural and philosophical. The role of law in society, the function of the legal profession, the development of the legal system, the reception of English Law in Canada, the contemporary legal system in British Columbia, the structure of the courts, problems of fact finding and evidence *stare decisis*, sources of law, the legislative process, administrative tribunals, an introduction to jurisprudential concepts, future trends with respect to the role of law in society, including law reform, legal services, the legal profession, access to the law. (Grading: COM, N, or F) (Full year course 30 hours)

#### **LAW 108 (6) THE PRIVATE LAW PROCESS**

These courses concentrate upon some of the basic rules or processes which regulate the relationships between private citizens. There is an attempt to integrate and interrelate many of the basic concepts normally covered in Contracts, Property, and Torts.

- |      |           |           |             |
|------|-----------|-----------|-------------|
| 108A | (2 units) | Contracts | (full year) |
| 108B | (2 units) | Property  | (full year) |
| 108C | (2 units) | Torts     | (full year) |

(Full year course 200 hours)

#### **LAW 110 (1) LEGAL RESEARCH AND WRITING**

The purpose of the course is to acquaint the first year student with the variety of materials in the Law Library and to provide a knowledge of basic legal research techniques. The use of various research tools, including the computer, is considered. Through a variety of written assignments, the students will become familiar with accepted principles pertaining to proper citation in legal writing and will develop a degree of proficiency in legal writing and research. (Full year course 30 hours)

*Some of the following courses have not yet been offered but have been approved and will be offered when resources permit. Some of these courses are offered in alternative years.*

#### **LAW 301 (2) THE ADMINISTRATIVE LAW PROCESS**

This course will seek to investigate the nature and function of the administrative process with particular reference to the development of tribunals and agencies with a wide variety of disparate functions and interactions with private life. Similarly, the course will investigate the way in which tribunals and courts interact, with specific reference to the judicial arsenal available for the control of administrative behaviour. (4-0)

#### **LAW 302 (1½) CRIMINAL LAW: II**

This course builds naturally upon the first year course in the Criminal Law Process with specific reference to defences and offences. In depth study of such matters as conspiracy, attempts, counselling, as well as the substantive offences of homicide, fraud, and contempt of court, will be carefully analyzed. Major defences, including double jeopardy, insanity, automatism and self defence will be scrutinized. (3-0)

#### **LAW 303 (1½) CRIMINAL PROCEDURE**

Procedural protections pervade the area of Criminal Procedure. It is crucial that an advocate intending to act on behalf of a client in a criminal matter be aware, not only of the specific mechanics of criminal procedure, but of its underlying philosophy and goals. Hence the course will undertake a study of such matters as jurisdiction, election and reelection, particulars, discovery, the indictment, plea bargaining, abuse of process, juries, the trial and appellate processes. (3-0)

#### **LAW 304 (5½-7½) CRIMINAL LAW TERM**

This course will provide students with a comprehensive understanding of the criminal process from its inception through the trial process and the corrections system. It is an intensive immersion program which will consider criminal procedure, sentencing and corrections, substantive criminal law, trial process and the law of evidence. Through a flexibly-designed program, students will consider all the major issues confronting the administration of criminal law. (11-0) to (15-0)

#### **LAW 307 (1½ or 2) CIVIL PROCEDURE**

This course will be founded upon an inquiry into the functions of a modern procedural system with specific reference to the development of a process which considers the extent to which the specific system under study aids in the achievement of just, speedy and economic resolutions of justiciable conflicts on their merits. Students will be introduced to the basic structure of a civil action and major items for consideration throughout the development of civil litigation. In the result, such matters as the expenses of litigation, jurisdiction, initial process, pleadings, amendment, joinder, discovery, disposition without trial and alternatives to adjudication will be discussed. (1½ units or 2 units depending upon whether the course includes a concentration in drafting)

307A (1½) Regular programs (3-0)

307B (2) Concentration in drafting (4-0)

#### **LAW 309 (2) THE LAW OF EVIDENCE**

This course will examine the objective structure and content of the law governing proof of facts in both civil and criminal trials, as well as before administrative tribunals. Rules of evidence respecting burdens of proof and presumptions, competence and compellability of witnesses, corroboration, hearsay, character, opinion evidence and a variety of other topics will be critically examined in the light of objectives of the legal process. (4-0)

#### **LAW 311 (1½) ADVANCED ADMINISTRATIVE LAW**

This course is concerned with the preparation and presentation of cases before administrative tribunals with special emphasis on the substance

of administrative procedure, administrative evidence and public law advocacy. A clinical placement may be offered. (3-0)

#### **LAW 312 (1½) DEBTOR AND CREDITOR RELATIONS**

The course will discuss legal aspects of the collection of judgments; use and problems of mechanic's liens; fraudulent transactions, both under provincial and federal law; creditor's arrangements; debtor assistance programs; and bankruptcy. (3-0)

#### **LAW 314 (1) SALE OF GOODS**

This course involves the study of the law pertaining to the sale of goods including an examination of the Sale of Goods Act, the Trade Practices Act and the Consumer Protection Act. (2-0)

#### **LAW 315 (2½) BUSINESS ASSOCIATIONS**

This course will analyze and discuss various legal forms for carrying on trade. The course recognizes that the corporation is one of immense commercial and legal significance as an organizational form and will hence stress legislation and materials respecting the modern company. Students will, however, be exposed to the sole proprietorship, partnership and related agency principles. (5-0) or (2-0; 3-0)

#### **LAW 316 (2) SECURED TRANSACTIONS AND NEGOTIABLE INSTRUMENTS**

An examination of various forms of chattel security; chattel mortgages, conditional sales, assignment of book debts, debentures, s.178 of the Bank Act; personal guarantees; the law of negotiable instruments. (4-0)

#### **LAW 317 (2) REAL PROPERTY TRANSACTIONS**

This course will adopt a transactional perspective and analyze the development of a real property transaction from its inception to post completion problems. Specific reference will be had to listing the property for sale and the responsibilities and obligations of the agent under the Real Estate Act, specific matters relating to the interim agreement, financing of the purchase and assessment of title, as well as preparation of the file for closing. Brief consideration will be given to condominium law and landlord and tenant relations. (4-0)

#### **LAW 318 (1½) REMEDIES**

This course seeks to highlight the interaction between the various substantive areas of private law: torts, property, contract and restitution. Additionally, the interaction between the common law and equity systems will be developed conceptually and historically. The course will concern itself with questions regarding damages, specific remedies, restitution, as well as analysis for alternative methods of remedial action through compensation schemes. (3-0)

#### **LAW 319 (1½) TRUSTS**

This course concerns the trust as a mode of disposition of property for the benefit of successive or single beneficiaries, and the contrast is made with absolute dispositions. Comparison is made with other concepts of obligation and property holding. The creation, administration, variation and termination of express trusts are examined, and also the theory and applicability of resulting and constructive trusts. (3-0)

#### **LAW 320 (1½) SUCCESSION AND ESTATE PLANNING**

This course involves the study of testate and intestate succession. The principles of the law of wills, both common law and statutory, and the statutory provisions for the devolution of intestate estates, will be examined. The drafting of wills is a feature of this course. Estate planning involves a general examination of the disposition of assets in life and on death against the background of income, inheritance and gift taxes. (3-0)

#### **LAW 321 (1½) COMPETITION LAW**

This course will trace the development of competition law from the common law doctrines of restraint of trade through the areas of trademarks and statutory regulation of competitive practices contained in anticompetitive and competition law, with an examination of the policy and theory underlying government regulation of restrictive trade practices. (3-0)

#### **LAW 322 (1½) FAMILY LAW**

This course will consider the institution of the family, both in its social and legal contexts. Specific reference will be had to law relating to marriage, divorce, custody, matrimonial property and the role of the lawyer in the resolution of family problems. This is a course which is ideally suited to interdisciplinary team teaching in order that the course may

helpfully illustrate the impact of legal decision making on the social unit of the family. (3-0)

#### **LAW 324 (1) CHILDREN AND THE LAW**

Considering such questions as adoption, affiliation, child protection, juvenile delinquency, custody and access, this course will focus upon the impact of law and legal institutions on children and their relations in society. The course will attempt to bring the knowledge and expertise of specific, related disciplines to bear upon the development of law and the legal institutions in this area. (2-0)

#### **LAW 326 (2) EMPLOYMENT LAW**

This course offers an introduction to three legal regimes bearing upon the employment relationship:

- (1) the common law;
- (2) collective bargaining law; and
- (3) regulatory schemes in such fields as employment standards, human rights and occupational health and safety.

A major theme of the course is the relative strengths and weaknesses of these three regimes and the legal institutions charged with their administration. (Not open for credit to students who have credit for 326 prior to 1985-86) (4-0)

#### **LAW 327 (1½) JURISPRUDENCE**

A wide variety of topics may be considered in this course in order to develop a theoretical framework for the purpose and function of law in society. Various schools of jurisprudential thought will be analyzed, including the Natural Law school, the Positivist school, Pure Theory school, the Sociological school, the American and Scandinavian Realist schools as well as Historical and Anthropological Jurisprudence. (3-0)

#### **LAW 328 (1) MUNICIPAL LAW**

This course is designed to provide students with an introduction to Municipal Law and provide a basis for the discussion of problems arising out of development and continued urbanization. Specific reference will be had to problems of bureaucratization, financing and urban reorganization, housing and development, elections, and the interrelationship between federal, provincial and municipal governments. (2-0)

#### **LAW 329 (1½) ENVIRONMENTAL LAW**

The course builds upon courses in Torts, Property and Administrative Law. Certain aspects of the land use planning and resource laws are pertinent. The various legal techniques to contain environmental disruption will be critically examined, including common law liability rules and various statutory models which have evolved, including prohibition, licensing, economic incentives, effluent charges and compensation systems. Environmental impact assessment legislation will also be studied. (2-0)

#### **LAW 330 (1½) INTERNATIONAL LAW**

Public International Law is concerned with the legal relations of states and the individuals who compose them. The course seeks to explore the way in which sovereign powers choose to govern their interrelationships and analyzes problems which confront them. Topics will include an examination of the international legal system, modes of international law creation and law enforcement as well as the process of international adjudication. (3-0)

#### **LAW 331 (1½) COASTAL AND MARINE LAW**

This course considers various problems in coastal and marine law. Topics covered may include maritime liens, salvage, tug and tow, charter parties and other commercial documents, marine insurance, regulation of commercial fisheries, protection of and planning in the marine environment. (3-0)

#### **LAW 332 (1½) INTERNATIONAL BUSINESS AND TRADE LAW**

International trade constitutes a crucial 30% of Canadian economic activity and this course will examine the major legal aspects of international trade from a private law perspective. The major emphasis is on the private law of an international sales transaction: terms of trade, carriage of goods, letters of credit, and commercial arbitration. The course is also expected to cover public international law issues regarding GATT and Canada's trade options. (3-0)

#### **LAW 333 (1½) SOCIAL WELFARE LAW**

The course is an introduction to the statutory framework of social welfare law. Topics include Workers' Compensation, Social Security, Unemployment Insurance, Welfare and Health Care legislation. (3-0)

**LAW 336 (1) COLLECTIVE AGREEMENTS: NEGOTIATION ARBITRATION**

A study of the negotiation and administration of collective agreements in the private sector. Topics will include labour negotiation theory, bargaining structure, grievance resolution, contract interpretation, individual rights and the role of the Labour Relations Board. (2-0)

**LAW 339 (1½) LEGAL THEORY WORKSHOP**

This seminar explores the interdisciplinary nature of legal studies by considering the contributions of 20th century social theory to legal thought. Topics which will be canvassed include analyses of law and legal systems from sociological, economic and philosophical perspectives. (3-0)

**LAW 340 (1½) SELECTED PROBLEMS IN CONSTITUTIONAL LAW**

The Canadian constitution was drafted over 100 years ago. It nevertheless may be analyzed from a variety of perspectives as a vital, living document which maintains flexibility and a sense of purpose in directing modern Canada. This course will consider, among others, questions relating to civil liberties, the judiciary in Canadian constitutionalism, provincial constitutions, comparative constitutional law and many other topics, in order to evaluate the success of the Canadian constitution's operation and posit suggestions for its reform. (3-0)

**LAW 341 (1½) NATIVE LEGAL ISSUES**

This seminar introduces students to treaties, common law, constitutional and statutory law in relation to aboriginal title and native rights. Specific reference will be made to reserve lands, property interests, hunting and fishing, family law, culture and religion. (3-0)

**LAW 342 (1½) IMMIGRATION AND REFUGEE LAW**

This course examines immigration and refugee law, policy and practice. Topics considered include the historical perspective, constitutional jurisdiction, the admission of immigrants, visitors and refugees, exclusion and removal, the acquisition of citizenship and the process of inquiries, appeals and judicial review. Relevant aspects of international law are covered. Students will be given an opportunity to consider immigration and refugee law from a comparative perspective, with particular focus on the Asia-Pacific region. (3-0)

**LAW 343 (1-2) CONTEMPORARY ISSUES IN LAW**

This course is concerned with legal issues which are contemporary and problematic. Each issue will be examined in the light of existing legal rules, social and related implications, the legal process, and possible reform. (The unit value of the course may vary from 1, to 1½, to 2 units per term. Students may take the course for credit more than once to a maximum of 4½ units of credit.) (2-0) to (4-0)

**LAW 344 (1½) INSURANCE LAW**

The course will examine the theory and elements of the practice of insurance law, with reference to the most common forms of both first party and third party insurance: property, life and motor vehicle insurance. (3-0)

**LAW 345 (2) TAXATION**

The course will strive to cover the basic principles of income tax law including such issues as taxable income, residence income from employment, business or property, and capital gains. It will also deal in a general way with policy underlying certain aspects of the Income Tax Act and will provide an introduction to certain specific provisions of that Act, concentrating primarily on personal income tax law. (4-0)

**LAW 346 (1) ADVANCED TAXATION**

This course builds upon the concepts studied in Taxation (345) and is concerned primarily with the Income Tax treatment of business organizations, particularly corporations and partnerships, and their investors. (2-0)

**LAW 347 (1½) INTELLECTUAL PROPERTY**

A study of the concept of intellectual property and the principles and policies of selected areas of intellectual property law, primarily: (a) registered trade marks and related common law provisions and (b) copyright in its categories of "literary", "dramatic", "musical", and "artistic" works and with a focus upon new technologies such as photocopying, videotaping and computer programming. In addition, the course includes a brief introduction to the law and policies of patents, industrial designs and confidential information. Where appropriate, attention is drawn to the interrelationship and boundary issues between the categories that together comprise the subject of intellectual property. (3-0)

**LAW 350 (7½) CLINICAL TERM**

Clinical legal education is predicated upon the assumption of a recognized role within the legal system by the law student. The experience gained from the participation in the role becomes the focus for reflection and examinations of substantive legal rules, procedural and strategical positions, and introspective critical analysis of the role of the lawyer in the legal process. This requires a carefully supervised program with manifold opportunities for one to one instructor student supervision and regular group sessions. Programs envisaged would take place in a community law office.

350A (7½) Community Law-Legal Aid Clinic (Grading: COM, N or F) (15-0)

**LAW 351 (5½-7½) PUBLIC LAW TERM**

This course will provide a forum for the development of a comprehensive understanding of the nature of policy formulation and decision making in governmental departments and agencies as well as the role of the lawyer in the context of the administrative and legislative processes. The course will focus on selected areas of governmental activity and will examine the evolution of public law and the conflicting values involved in the regulation of contemporary society, the emerging dominance of the executive branch of the government and the professional responsibility of the lawyer as advocate, legislator, counsellor, lobbyist, administrator and policy adviser. A clinical placement may be arranged for each student. (11-0) to (15-0)

**LAW 352 (5½-7½) BUSINESS LAW AND PLANNING TERM**

This is an intensive course. It examines several advanced areas of law which pertain to a solicitor's practice with particular reference to areas of corporate and commercial law. The subjects are studied from a transactional perspective. (11-0) to (15-0)

**LAW 355 (2) LEGAL SKILLS**

The course uses materials from substantive law to examine and develop the skills of the lawyer in interviewing, counselling and negotiating. (Grading: COM, N, or F) (4-0)

**LAW 356 (2) ADVOCACY**

This course will involve a critical analysis of the trial process including the demonstration and evaluation of various techniques of advocacy and their relationship to the law of evidence and procedure. In particular, the objectives and techniques of pretrial motions, examinations for discovery, examination and cross examination of witnesses, exhibits, and the presentation of legal argument will be considered. (Grading: COM, N, or F) (4-0)

**LAW 359 (1½) CIVIL LIBERTIES AND THE CHARTER**

This course will examine the relationship between government and the individual. The major emphasis will be upon the development and protection of civil liberties and human rights in Canada. Reference may also be made to Human Rights Legislation and International Agreements. (3-0)

**LAW 360 (1½) THE LEGAL PROFESSION**

This course is designed to provide students with insights and perspectives into the organization and operation of the legal profession as a vital institution in the legal process. The class will be asked to consider the legal profession in its social context, its formal organization, its ethical procedures, and the role of the lawyer throughout the legal process. It appears to many that the role of the professions in general is changing. A consideration of this issue is focused upon the legal profession. (3-0)

**LAW 361 (1½) HISTORICAL FOUNDATIONS OF THE COMMON LAW**

The development of English legal systems have had a profound impact on Canada as well. Beginning with 11th century European developments, the course will consider a number of topics, such as Anglo-Saxon England and the Norman Conquest, the development of common law and equity, criminal law and 19th century developments, ending with some analysis of the "reception" of English law in the colonies. (3-0) or (2-1)

**LAW 362 (1½) CANADIAN LEGAL HISTORY**

This course addresses a series of selected themes in Canadian Legal History, especially the theoretical diversity of Canadian legal historiography and the place of Legal History within the broader context of Canadian political, social, economic, cultural and intellectual history. (3-0)

**LAW 363 (1½) CONFLICT OF LAWS**

This course seeks to illustrate problems arising out of the interaction of laws and legal systems. Such important questions as choice of law, recognition of foreign judgments, doctrines of domicile and renvoi will be investigated in order to develop an understanding of the choices and values inherent in decision making in this area. (3-0)

**LAW 365 (1-2) LEGAL MOOTING**

A student may be awarded credit in the second and third years of the student's program to a maximum of 2 units in either year and 2½ units in the student's entire program for supervised participation in inter-university mooting competitions designated by the Dean. (Grading: COM, N, or F) (2-0) to (4-0)

**LAW 370 (1½) ASIA-PACIFIC LAW**

The theory and methodology of Comparative Law will be introduced and then the historical, cultural, political, economic and other factors of legal development in four major areas of the Asia-Pacific Region will be

explored: Northeast Asia, Southeast Asia, South Asia and the Southwest Pacific. ASEAN countries will be considered in more detail. The final part of the course will focus on one or two areas of the law, such as criminal law, family law or intellectual property, and on one or two selected countries. (3-0)

**LAW 399 (1-4) SUPERVISED RESEARCH AND WRITING**

During either of the second or third years of a student's program, a student may undertake a substantial research and writing project on a legal subject approved by a member of the Faculty of Law who agrees to supervise the project. With the approval of the Dean or his nominee, a student may be awarded credit for two separate supervised research papers provided that the total credit does not exceed 4 units and each paper is started and completed in separate terms. With the approval of the Dean or his nominee, this course may be extended over two terms. The approval of the Dean, or his nominee, is required if this course is to be taken for 1 unit only.

# FINANCIAL AID

## GENERAL REGULATIONS

All inquiries concerning material in this section should be directed to the Student Financial Aid Services Office, University of Victoria, Box 1700, Victoria, B.C. V8W 2Y2.

All bursaries adjudicated by the University of Victoria are administered by the Senate Committee on Awards. Grants, loans and work-study positions are administered by the Student Financial Aid Services staff.

To be eligible for a bursary offered by the University, students must take an appropriate number of units in the Winter Session, normally 15. If, however, students can demonstrate that they are carrying the maximum course load possible in the circumstances, exceptions can be made to this stipulation. All students who are taking fewer than 15 units during the Winter Session and who wish to be considered for a bursary must have an interview with an adviser from the Student Financial Aid Services Office.

Where applications are necessary, the deadline for submission of application forms is specified for each bursary.

Except where the donor directs otherwise, the proceeds of bursaries issued by or through the university will be applied towards the total fees for the academic year. If the amount of the bursary or bursaries exceeds the unpaid total fees for the academic year, the excess balance will be paid

to the student. Proceeds from government loans, grants and work study are paid directly to the student.

Any awards may be withheld or cancelled for any of the following reasons: lack of suitable candidates; failure to meet terms and conditions of award; withdrawal from the University; withdrawal of the award by donor.

If for any reason the original recipient becomes ineligible, the allocated funds may be reassigned to other students.

## DEFINITIONS

- (a) An award based on financial need is any bursary, grant, loan or work study position.
- (b) A bursary is a nonrepayable monetary award based on financial need and reasonable academic standing, as determined by the Senate Committee on Awards.
- (c) A grant is a nonrepayable monetary award based on financial need as determined by the office or agency mentioned in the award.
- (d) A loan is a repayable monetary award based on financial need.
- (e) A work study position is a subsidized job on campus, allocated on the basis of financial need as demonstrated on a British Columbia Student Assistance Program form.

## SECTION 1

### THE UNIVERSITY OF VICTORIA TUITION ASSISTANCE BURSARY FUND FOR ALL STUDENTS

This fund was established by the Board of Governors in 1965, who at that time expressed concern that qualified students could not attend the University of Victoria because of serious financial difficulties. Specifically, the Board indicated:

- (a) that the Fund is intended to assist students who are in serious financial difficulty;
- (b) that applicants be interviewed by an officer of the University;

- (c) that students should not normally expect to receive assistance unless they meet the need criteria established by the B.C. Student Loan Committee. Where there are special circumstances, appropriate consideration will be given, and each case will be judged on its own merits.

Application forms are only available after registration from the Student Financial Aid Services Office, Second Floor, University Centre. Completed application forms are to be submitted by November 15 in the First Term, and by February 15 in the Second Term. Forms should be submitted in person so that an appropriate time for an interview may be arranged.

## SECTION 2

### ENTRANCE BURSARIES REQUIRING APPLICATION

#### A. ENTRANCE BURSARIES ADMINISTERED BY THE UNIVERSITY OF VICTORIA

Application forms for the following bursaries may be obtained from the Student Financial Aid Services Office, University of Victoria, Box 1700, Victoria, B.C. V8W 2Y2, and must be returned by June 30, unless otherwise indicated.

\* **SARA AND JEAN MACDONALD BURSARY FUND** — This fund provides five bursaries valued at \$450 each for worthy and deserving women students entering the University of Victoria from secondary schools. Selection is to be made by the Committee on Awards on the basis of financial need and recommendations from secondary schools.

**PACIFIC COAST FISHERMENS MUTUAL MARINE INSURANCE COMPANY BURSARY** — Bursaries of \$600 are offered by Pacific Coast Fishermen's Mutual Marine Insurance Company to sons, daughters and legal wards of past and present members of this insurance company. They are open to students entering the University from Grade XII. The application must be accompanied by a letter describing the family fishing history in general terms and detailing types of fishing and boat names. Selection will be made by the Committee on Awards in consultation with officials of the Company.

\* **THE WILF SADLER MEMORIAL BURSARY FUND** — A bursary of four hundred and seventy-five dollars (\$475) will be allocated annually to a needy student from the Greater Victoria area who is entering the university from the secondary school system. Preference will be given to students who can demonstrate significant involvement in amateur sports. Selection will be made by the Senate Committee on Awards in consultation with representatives from local secondary schools.

#### B. ENTRANCE BURSARIES ADMINISTERED BY THE UNIVERSITY OF BRITISH COLUMBIA

Application forms for the following bursaries may be obtained from the Office of Awards and Financial Aid, the University of British Columbia, Room 50, 2075 Wesbrook Place, Vancouver, B.C. V6T 1W5, and must be returned by April 15, unless otherwise indicated. Since some changes may have been made after this calendar went to press, you are urged to refer to the U.B.C. Calendar.

**BRITISH COLUMBIA FOREST PRODUCTS LIMITED BURSARIES** — Bursaries to a total of \$10,300, each with a maximum value of \$1,200, are offered by British Columbia Forest Products Limited to qualified legal dependents of employees who, by June 30 of the year in which the award is made, have or will have served with the Company for at least one year. The awards are open to students beginning or continuing studies in the fall in a full undergraduate program of studies at the University of British Columbia, the University of Victoria or Simon Fraser University. Winners of the company's Entrance Scholarships will not be permitted to simultaneously hold a British Columbia Forest Products Limited Bursary. Applications must contain the necessary details of family service with the company.

**RETAIL, WHOLESALE AND DEPARTMENT STORE UNION, LOCAL 470 BURSARY** — One bursary of \$250 is offered by the Retail, Wholesale and Department Store Union, Local 470 to active members, or sons, daughters and legal wards of active members of the Union in good standing. It is open in competition to applicants who are proceeding from Grade XII to begin studies at the University of British Columbia.

\* Administered by the University of Victoria Foundation.

bia, the University of Victoria, or Simon Fraser University, or to a regional college, in a full program leading to a degree in any field, or leading to a Diploma in technology at the British Columbia Institute of Technology. To be eligible for consideration a candidate must have a satisfactory academic standing (normally an overall average of at least 65% in Grade XII). In the selection of the winner, the basic factors will be the financial need of the candidates and their families. The winner will be selected in consultation with the Union.

**THE RETAIL, WHOLESALE AND DEPARTMENT STORE UNION, LOCAL 580 BURSARY** — A bursary of \$500 is offered by the Retail, Wholesale and Department Store Union, Local 580 to active members, sons, daughters and legal wards of active members of the Union in good standing. It is open in competition to applicants who are proceeding from Grade XII to studies at the University of British Columbia, the University of Victoria or Simon Fraser University in a full program leading to a degree in any field. To be eligible for consideration a candidate must have satisfactory standing (normally an overall average of 65% in Grade XII). In the selection of the winner, the basic factor will be the financial need of the candidates and their families. The winner will be selected in consultation with the Union.

**RETAIL, WHOLESALE UNION, LOCAL 580 — Stan Colbert Bursary** — A bursary of \$500 is offered by the Retail Wholesale Union Local 580 to active members, or sons, daughters and legal wards of active members of the Union in good standing. It is open in competition to applicants who are proceeding from Grade XII to studies at the University of British Columbia, the University of Victoria, the B.C. Institute of Technology, or Simon Fraser University, or to a regional college in a full program leading to a degree or equivalent in any field. To be eligible for consideration a candidate must have satisfactory academic standing (normally an overall average of at least 65% in Grade XII). In the selection of the winner, the basic factor will be the financial need of the candidates and their families. The winner will be selected in consultation with the Union.

#### **VAN-TEL CREDIT UNION BURSARIES**

##### **(a) The Leo Morris Memorial Bursary:**

To honour the memory of Leo Morris, late treasurer of Van-Tel Credit Union, a bursary of \$500 will be awarded to the sons, daughters and legal dependents residing in British Columbia, of members of Van-Tel Credit Union. It is open to competition to students proceeding from Grade XII into a full program of studies at the University of British Columbia, University of Victoria, Simon Fraser University, or any accredited postsecondary Institute within the Province of British Columbia. The winner will be selected by the University of British Columbia in consultation with Van-Tel Credit Union. From those who so qualify, in the final selection, a major factor will be the financial circumstances of the applicants and their families. Applications and further information may be obtained from the Awards Office at the University of British Columbia, Vancouver, B.C. V6T 1W5. Applications must be received by U.B.C. on or before May 15.

##### **(b) The Les King Memorial Bursary:**

To honour the memory of Les King, late President of Van-Tel Credit Union, a bursary of \$500 will be awarded to the sons, daughters and legal dependents residing in British Columbia, of members of Van-Tel Credit Union. It is open to competition to students proceeding from Grade XII into a full program of studies at the University of British Columbia, University of Victoria, Simon Fraser University, or any accredited postsecondary Institute within the Province of British Columbia. The winner will be selected by the University of British Columbia in consultation with Van-Tel Credit Union. From those who so qualify, in the final selection, a major factor will be the financial circumstances of the applicants and their families. Applications and further information may be obtained from the Awards Office at the University of British Columbia, Vancouver, B.C. V6T 1W5. Applications must be received by U.B.C. on or before May 15.

**WHITE SPOT LIMITED BURSARY** — One bursary, having a total value of \$1,000, is provided by White Spot Limited and its subsidiary companies for their employees, and sons and daughters of their employees who have served the firm for at least two years. The bursary is paid in annual amounts of \$250 each and is open in competition to eligible students proceeding from Grade XII of secondary school to a full program of studies at the University of British Columbia, the University of Victoria or Simon Fraser University. For purposes of qualification "employees" shall include students having part time employment with the Company while attending secondary school, and who are still employed. The decision as to qualification by employment shall rest with

the Company. In all other matters, winners will be selected by the Office of Awards and Financial Aid of the University of British Columbia on the basis of academic standing and need for financial assistance. To be eligible, a candidate must have clear standing in the year's work most recently taken with an overall average of at least 65%. Winners will be considered for renewals of the bursary for their second, third and fourth years of University attendance (up to graduation). Renewals each year, however, are not automatic and will be made only to those who file a new application, pass all subjects with a minimum overall average of 65%, need financial assistance, and who still qualify as employees of, or dependents of employees, at White Spot.

#### **C. ENTRANCE AWARDS ADMINISTERED BY OTHER INSTITUTIONS AND ORGANIZATIONS**

**THE EDWARD JAMES ASHMORE MEMORIAL BURSARY** — A bursary in the amount of \$1,000 is offered annually by the Hospital Employees' Union Local 180, in memory of the late Brother E.J. Ashmore who was 2nd Vice-President of the Union's Provincial Executive Committee. The bursary will be offered to students who are proceeding in the fall from Grade XII to a full program of studies at the University of British Columbia, the University of Victoria, Simon Fraser University, or any regional college in British Columbia, in any field leading to a degree, or leading to a diploma in technology at the British Columbia Institute of Technology. To be eligible an applicant must be the son/daughter of an active member of the Union ("active" being interpreted as on staff of a hospital within the jurisdiction of Local 180, or on the staff as of January 1 of the year of the award but since superannuated). The information given in the application form must clearly establish the applicant's connection with Local 180. The bursary will be awarded to the candidate who, in the opinion of the University (in consultation with the Union) is best qualified in terms of financial need. Applications and information may be obtained from Hospital Employees' Union, Local 180, 2286 West 12th Avenue, Vancouver, B.C., V6K 2N5.

**THE BOBBY BAUER MEMORIAL AWARD** — The Bobby Bauer Memorial Foundation makes one or more awards annually to students demonstrating outstanding proficiency in hockey who qualify for admission to a full time undergraduate course at a Canadian university. Application should be made prior to August 31 on forms provided by the Foundation. A letter of reference from a person actively involved in hockey must accompany each application. Inquiries and each application should be sent directly to: Bobby Bauer Memorial Foundation, 60 Victoria Street North, Kitchener, Ontario.

**B.C. ASSOCIATION OF SOCIAL WORKERS, NORTHERN BRANCH, BURSARY** — This \$500 bursary is available for a student who is:

- 1) accepted for study in a recognized School of Social Work and enrolled in a program leading to a B.S.W. or M.S.W. degree,
- 2) a resident of the Northern Branch B.C.A.S.W. area (essentially regions 5, 7 and 8 of the Ministry of Human Resources),
- 3) has a need of financial assistance.

Application must be made by June 30 to Mr. Verne Dallamore, Chairperson, Bursary and Grants Committee, Northern Branch, B.C.A.S.W., P.O. Box 271, Prince George, B.C. V2L 4S2.

**CAL CALLAHAN MEMORIAL BURSARY** — The Pipe Line Contractors Association of Canada offers a bursary, or bursaries, to the total of \$1,000 per annum, to be awarded annually, to sons, daughters or legal wards of persons who derive their principal income from the Pipeline Industry and whose employers are members of the Association. The purpose of these bursaries is to give the financial assistance to students who are beginning undergraduate studies in a full program leading to a degree or certificate in any field, at a recognized University or College in Canada. Selection will be made by the Executive Committee of the Association from applicants, based upon scholastic record and financial need, provided that they otherwise qualify. Applications may be obtained from the Association's Executive Office, Suite 720, 5915 Airport Rd., Mississauga, Ontario, L4V 1T1 and must be returned by not later than September 30, accompanied by a receipt or other proof of enrollment.

**THE KIT DAVISON BURSARY ENDOWMENT FUND** — Administered by the Muscular Dystrophy Association of Canada, B.C. Region. This bursary has been established to honour Mrs. Davison. It is intended for students with muscular dystrophy who wish to continue their studies at any B.C. postsecondary institution. Criteria: Candidates must be registered with the Association, have completed Grade 12, and be a resident of B.C. Amount: \$500. Deadline for applications is August 1. Address: Suite 123, 1600 West 6th Avenue, Vancouver, B.C. V6J 1R3.

**THE HOSPITAL EMPLOYEES' UNION (PROVINCIAL EXECUTIVE) BURSARIES** — A bursary in the amount of \$500 is offered by the Hospital Employees' Union Local 180 to students who are proceeding in the fall from Grade XII to a full program at the University of British Columbia, University of Victoria, Simon Fraser University, or any of the regional colleges in British Columbia, in any field leading to a degree, or leading to a diploma in technology at the B.C. Institute of Technology. To be eligible an applicant must be the son or daughter of an active member of the Union ("active" being interpreted as on the staff of a hospital within the jurisdiction of Local 180, or on the staff as of January 1 of the year of award but since superannuated). The information given in the form must clearly establish the applicant's connection with Local 180. Present members of the Hospital Employees Union who have had one (1) year of continuous service shall, as well as their children and spouses, be eligible for Bursaries. Bursaries shall be attainable at any postsecondary educational institute. Applications and information may be obtained from Hospital Employees' Union, Loc. 180, 2286 West 12th Avenue, Vancouver, B.C., V6K 2N5.

**THE HOSPITAL EMPLOYEES' UNION (ROYAL JUBILEE UNIT) BURSARY** — A bursary in the amount of \$350 is offered by the Royal Jubilee Unit, Victoria, of the Hospital Employees' Union, Local 180. The award is available to students who are proceeding in the fall from Grade XII to a full program at the University of British Columbia, the University of Victoria, Simon Fraser University or any of the regional colleges in British Columbia, in any field leading to a degree, or leading to a diploma of technology at the British Columbia Institute of Technology. To be eligible, an applicant must be the son or daughter of an active member of the Union ("active" being interpreted as on the staff of a hospital within the jurisdiction of Local 180, or on the staff as of January 1st of the year of award but since superannuated). The information given on the application must clearly establish the applicant's connection with Local 180. Present members of the Hospital Employees Union who have had one (1) year of continuous service shall, as well as their children and spouses, be eligible for Bursaries. Bursaries shall be attainable at any postsecondary educational institute. Applications and information may be obtained from Hospital Employees' Union, Lo. 180, 2286 West 12th Avenue, Vancouver, B.C., V6K 2N5.

**THE HOSPITAL EMPLOYEES' UNION (VANCOUVER GENERAL UNIT) BURSARIES** — Two bursaries of \$350 each are offered annually by the Vancouver General Unit of the Hospital Employees' Union Local 180 to students who are proceeding in the fall from Grade XII to a full program at the University of British Columbia, University of Victoria, Simon Fraser University, or any of the regional colleges in British Columbia, in any field leading to a degree, or leading to a diploma in technology at the B.C. Institute of Technology. To be eligible an applicant must be the son or daughter of an active member of the Union ("active" being interpreted as on the staff of a hospital within the jurisdiction of Local 180, or on the staff as of January 1 of the year of award but since superannuated). The information given in the form must clearly establish the applicant's connection with Local 180. Present members of the Hospital Employees Union who have had one (1) year of continuous service shall, as well as their children and spouses, be eligible for Bursaries.

Bursaries shall be attainable at any postsecondary educational institute. Applications and information may be obtained from Hospital Employees' Union, Lo. 180, 2286 West 12th Avenue, Vancouver, B.C., V6K 2N5.

**THE HOSPITAL EMPLOYEES' UNION (VICTORIA GENERAL UNIT) BURSARY** — A bursary of \$350 is offered by the Victoria General Unit of the Hospital Employees' Union Local 180 to students who are proceeding in the fall from Grade XII to a full program at the University of British Columbia, University of Victoria, Simon Fraser University, or any of the regional colleges in British Columbia, in any field leading to a degree, or leading to a diploma in technology at the B.C. Institute of Technology. To be eligible an applicant must be the son or daughter of an active member of the Union ("active" being interpreted as on the staff of a hospital within the jurisdiction of Local 180, or on the staff as of January 1 of the year of award but since superannuated). The information given in the form must clearly establish the applicant's connection with Local 180. Present members of the Hospital Employees Union who have had one (1) year of continuous service shall, as well as their children and spouses, be eligible for Bursaries. Bursaries shall be attainable at any postsecondary educational institute. Applications and information may be obtained from Hospital Employees' Union, Lo. 180, 2286 West 12th Avenue, Vancouver, B.C., V6K 2N5.

**THE I.W.A. LOCAL 1-80 BURSARY** — The International Woodworkers of American Local 1-80 offers a bursary in the amount of \$1,000 in open competition to all I.W.A. Local 1-80 members or a wife, son, or daughter of an I.W.A. Local 1-80 member, or to a person who is wholly supported by a member in good standing of Local 1-80. For the purpose of eligibility in applying for a bursary, the wife, son, or daughter of a deceased I.W.A. Local 1-80 member in good standing at the time of death, or a member who is retired and was a member of good standing of Local 1-80 at the time of retirement, shall also be eligible. In making the award, the bursary committee will be guided by the following: the average marks obtained by the Grade XII student during the school term; indication of need; all applicants must be in the university program proceeding to any degree granting university, the B.C. Institute of Technology, or other accredited vocational or technical school to complete a course leading to establishing a career. All those desiring to compete must notify the Financial Secretary of I.W.A. Local 1-80, 351 Brae Road, Duncan, B.C. by a letter not later than June 21. The I.W.A. Local 1-80 reserves the right to withhold the bursary if no candidate makes sufficiently high standing.

**ROYAL CANADIAN LEGION (PACIFIC COMMAND) BURSARIES** — The Legion (Pacific Command), offers annually a number of awards for students proceeding from high school to university, and some awards to students entering second, third and fourth year. These bursaries are awarded on the basis of academic standing, financial need and participation and achievement in student and community affairs. Preference is given to sons and daughters of deceased, disabled or other veterans, but applications from other worthy students are also considered. The deadline date for applications is May 31. Further information may be obtained from Royal Canadian Legion, 3026 Arbutus Street, Vancouver, B.C. V6J 3Z2.

## SECTION 3

### UNDERGRADUATE BURSARIES FOR WHICH NO APPLICATION IS NECESSARY

The bursaries listed in this section are open only to students who attended the University of Victoria in the regular Winter Session specified in this Calendar. They are awarded automatically and applications from students are not required. Students in specific disciplines may wish to discuss their potential eligibility with representatives from the Faculty, School or Department.

#### General Bursaries

\* **SUTRO BANCROFT** — A bursary of six hundred dollars (\$600) will be awarded by the Senate Committee on Awards to a deserving and promising student continuing studies at the University of Victoria.

**BETA SIGMA PHI SORORITY ELIZABETH FORBES BURSARY** — An award of two hundred dollars (\$200) to be awarded annually to a promising and deserving woman entering third or fourth year Arts and Science or Education at the University of Victoria.

**THE BRITISH COLUMBIA TELEPHONE COMPANY BURSARY** — A bursary valued at seven hundred and fifty dollars (\$750) will be awarded to a student in any undergraduate discipline who has completed

first year, and is proceeding directly to second year, at the University of Victoria. Selection will be made by the Senate Committee on Awards on the basis of financial need and reasonable academic achievement.

\* **THE NELS GRANEWALL BURSARY FUND** — One or more awards are made to students in any undergraduate discipline entering their graduating year who demonstrate a need for financial assistance. Preference will be given to students with family responsibilities whose permanent residence is outside of Greater Victoria. The Awards are made available through the donation of the 1984 Graduating Class to commemorate the Twenty-First Birthday of the University of Victoria.

\* **SUE MACDONALD MEMORIAL BURSARY FUND** — One or more awards are available annually on the basis of financial need.

\* **ALEC McNAB AND NEVILLE MUNSON EMERGENCY FUND** — One or more awards are available annually on the basis of financial need.

**THE UNIVERSITY OF VICTORIA FACULTY BURSARIES** — Approximately 25 bursaries of \$500 are awarded annually on the basis of financial need and reasonable academic standing. The fund for these awards was established by donations of University of Victoria faculty

\* Administered by the University of Victoria Foundation

members and professional librarians. Selection of the recipients will be made by the Student Financial Aid Services Office.

\* **FORREST L. SHAW EMERGENCY FUND** — One or more awards are available annually on the basis of financial need.

\* **THE WEBER MEMORIAL BURSARY** — Two hundred and seventy-five dollars (\$275) to be awarded annually in memory of Mr. and Mrs. E. Weber, to the most deserving student in the third year. Academic standing, citizenship and need are all to be taken into consideration.

### Undergraduate Awards Listed by Course or Area of Study

#### Biochemistry

\* **THE DR. ERNST VON RUDLOFF BURSARY IN BIOCHEMISTRY** — An award of \$500 is made annually to a student beginning year 3 or 4 of a major or honours program in Biochemistry. The award is open to all students in this program, especially those interested in plant biochemistry. The award will be based on academic standing and financial need. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Biochemistry and Microbiology.

#### Biology

**THE HOWARD ENGLISH BURSARY** — The Victoria Fish and Game Protective Association will present a bursary in the amount of five hundred dollars (\$500) annually to a student entering fourth year in Biological Sciences and who shows demonstrated interest in conservation, especially as applied to aquatic ecology (biology). Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Biology.

\* **THE GERALD G. FEW BURSARY IN FOREST-BIOLOGY** — Two awards of up to \$1,000 each will be made to needy students in the biological sciences with a commitment to the field of Forest Biology. Selection to be made by the Senate Awards Committee upon the recommendation of the Forest Biology Program Committee.

\* **THE G. MORLEY NEAL MEMORIAL BURSARY** — An award of at least \$1,000 is made annually to a student entering year 4 of a biology honours or major program, who has a good academic standing and is in financial need. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Biology.

**THE SAMUEL SIMCO BURSARIES** — Two Samuel Simco Bursaries of four hundred dollars (\$400) each, established by the Victoria Natural History Society out of funds bequeathed for this purpose by the late Mr. Samuel Simco, will be awarded annually by the Society to students entering the third and fourth year of any undergraduate program in the field of Natural History or any year of a graduate program in the same area of study, who have good academic standing and are in financial need. If the circumstances warrant, the recipient may receive an award for two successive years. Selection will be made by the Senate Committee on Awards on the recommendation of the Department of Biology.

#### Child Care

\* **THE WINNIFRED M. CLARK BURSARY** — A bursary established by the Capital Region Association for the Mentally Handicapped will be awarded annually to a needy student entering the fourth year of the Child Care program specializing in the study of mental retardation. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Child Care.

#### Creative Writing

\* **THE PATTI BARKER BURSARY IN CREATIVE WRITING** — A bursary is awarded annually to a student in a first or second year Creative Writing course. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Creative Writing.

\* **THE CYRIL AND FRANCES GAGNON BURSARY** — A bursary of up to \$400 will be awarded annually to a needy 3rd or 4th year student in the Department of Creative Writing who was born in British Columbia and is or was a resident of a rural area of British Columbia. Selection of the recipient will be made by the Senate Committee on Awards upon recommendation of the Department of Creative Writing.

#### Economics

**B.P. CANADA BURSARY** — An award of one thousand dollars (\$1000) is offered annually to a student continuing studies at the University of Victoria in either Economics or Engineering. Selection will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering and the Department of Economics.

#### Education

\* **THE G. CLIFFORD CARL MEMORIAL BURSARY** — Six hundred dollars (\$600) awarded to a deserving student entering third, fourth, or fifth year or in the undergraduate certification program in the Faculty of Education and specializing in Biological Sciences or Outdoor Education. Selection will be made by the Senate Committee on Awards upon the recommendation of the Scholarship Committee of the Faculty of Education.

\* **THE CLEARIHUE BURSARY** — Eight hundred and fifty dollars (\$850) awarded annually to a promising and deserving student in the Faculty of Education, who shows promise and who has at least a good second class average.

\* **THE FOX MEMORIAL BURSARY** — An award of at least \$750 will be made to a deserving student entering third, fourth, or fifth year in the Elementary Curriculum of the Faculty of Education, who has at least a good second class average. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **THE MADGE HOGARTH BURSARY FUND** — One or more bursaries totalling approximately \$1,000 are awarded annually to students entering the Professional Year, including the Post Degree Professional program, in the Faculty of Education. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **THE JAMES WILSON HORNE MEMORIAL BURSARY** — An award of \$800 will be made to students who have received undergraduate degrees from the University of Victoria and are continuing studies in the Post Degree Professional Programs in the Faculty of Education. The recipients must demonstrate outstanding interest in education and financial need. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **THE GODFREY LAWRENCE STEVENS LEE PHYSICAL EDUCATION BURSARY** — An award of \$400 is made annually to a deserving School of Physical Education student proceeding to year 2, 3 or 4 of the B.Sc. program with a major in Human Performance. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **THE CORALIE L. LOMAS MEMORIAL CANADIAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION AND RECREATION BURSARY** — Three hundred and seventy-five dollars (\$375) is awarded annually to a student who has completed first year and is proceeding toward a B.Ed. degree with a teaching area in Physical Education. Applicants should demonstrate a need for assistance, and show evidence of a particular interest and aptitude in Physical Education plus general proficiency in academic work. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Greater Victoria Branch of C.A.H.P.E.R.

\* **THE GUNNER SHAW MEMORIAL BURSARY** — An award of \$600 is made annually on the basis of financial need and academic performance to a Vancouver Island resident entering year one of the Physical Education program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **THE TAYLOR EDUCATION BURSARIES** — Annual awards will be made to fourth year students showing outstanding ability and interest in Education and needing financial assistance. If no qualifying students are enrolled in fourth year, the bursaries may be awarded the next year or be presented to qualified students of the fifth year, at the discretion of the Faculty of Education. The award commemorates the interest in Education by the Taylor family of Victoria.

#### Engineering

**B.P. CANADA BURSARY** — An award of one thousand dollars (\$1000) is offered annually to a student continuing studies at the University of Victoria in either Economics or Engineering. Selection will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering and the Department of Economics.

**THE FUTURE ENGINEERING ASSISTANTS TEAM BURSARY IN ENGINEERING** — A bursary will be awarded annually to an undergraduate student in extreme financial need who is continuing studies at the University of Victoria in the Faculty of Engineering. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

\* Administered by the University of Victoria Foundation

\* **THE ALLAN AND ELIZABETH McKINNON BURSARY IN ENGINEERING** — An award of \$800 is made annually, on the basis of financial need and academic performance, to a student entering the Faculty of Engineering. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

\* **HUGH AND LILIAN SALMOND BURSARY** — An award of \$500 is made annually, on the basis of financial need and academic performance, to a student proceeding to year two in the Faculty of Engineering. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

#### English

\* **THE IRENE LEE BURSARY IN ENGLISH** — An award of \$400 is made annually to a deserving student proceeding to year 3 or 4 of an Honours or Major program in the Department of English. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of English.

#### French

\* **THE MAJOR KEITH W.A. MACDOUGALL MEMORIAL BURSARY** — A bursary of \$250 will be awarded annually to a deserving undergraduate student in need of assistance who is majoring in French and who is interested in continuing studies in the field. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of French Language and Literature.

#### Health Information Science

**VICTORIA MEDICAL SOCIETY BURSARY** — An award of \$750 is made annually to an outstanding student in financial need, who is proceeding to year 3 or 4 of the Health Information Science program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Health Information Science.

#### History

\* **CANADIAN DAUGHTERS' LEAGUE, ASSEMBLY NO. 5 — GERTRUDE M. RALSTON MEMORIAL BURSARY** — Two hundred and fifty (\$250) awarded to a deserving student, preferably one in Canadian history.

#### Italian

**THE ITALIAN ASSISTANCE CENTRE BURSARY** — Two hundred and fifty dollars (\$250) to be granted annually to two needy students who have shown proficiency in the Italian language and who will be returning to the University of Victoria for further studies in Italian. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Hispanic and Italian Studies.

#### Law

\* **THE LIFE UNDERWRITERS ASSOCIATION OF CANADA EDUCATIONAL FOUNDATION BURSARY IN LAW** — A bursary of \$175 is awarded annually to a student in the Faculty of Law who demonstrates financial need. The recipient will be chosen by the Senate Committee on Awards on the recommendation of the Faculty of Law.

**THE MICKEY MORAN MEMORIAL BURSARY** — A bursary of \$350 is awarded annually on the basis of financial need and the student's contribution to and achievement in courses related to litigation and criminal law. The award, sponsored by the Kootenay Bar Association, honours the late Mickey Moran, Q.C. for his achievements in the practice of criminal law. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE JEAN MARIE SHERWIN BURSARY IN LAW** — A bursary of \$500 is awarded to a student in the first or second year of the Law program who has demonstrated superior ability, enthusiasm and aptitude in the study of Law and is in need of financial assistance to continue his studies. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE HUGH STEPHEN BURSARY** — A bursary of \$500, established by Mr. Hugh Stephen, is awarded annually to a student in the Faculty of Law who needs financial assistance to complete his or her legal studies. An applicant's contribution to the activities of the Faculty and academic record may be considered when applications for the bursary are evaluated. The selection of the recipient of the bursary will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE CHIEF MICHAEL A. UNDERWOOD MEMORIAL BURSARY** — A bursary of \$500 has been made available to assist native students to continue their studies in the Faculty of Law. The bursary is available to full or part time students who are in financial need and have

successfully completed at least the first term of study in the LL.B. program. One or more students in a given year may share the bursary. Selection of the recipient(s) will be made by the Dean or the Dean's nominee, acting upon the recommendation of the Faculty of Law's Financial Aid committee, or its successor.

#### Music

\* **THE ST. JUDE BURSARY** — One or more awards are made annually to student(s) pursuing a Bachelor of Music degree with a performance major in voice. The student(s) must demonstrate financial need and display vocal and academic excellence. The recipients may be newly admitted or returning students. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music's Performance faculty.

\* **THE GEORGE JENNINGS BURNETT MEMORIAL BURSARY** — An award of \$1,000 is made annually to a student specializing in organ or composition in a Bachelor of Music program. Preference will be given to a student who needs financial assistance to continue in the program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

#### Nursing

**BRITISH COLUMBIA LUNG ASSOCIATION — CHRISTMAS SEAL SOCIETY BURSARY** — A bursary of five hundred dollars (\$500) will be awarded annually by the British Columbia Lung Association - Christmas Seal Society to a needy student entering the final year in the Nursing Program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Nursing.

\* **THE LILY HARRIS MEMORIAL BURSARY** — A bursary of \$500 has been established in memory of Miss Harris who was a teacher of nursing in China for many years. The award will be made annually to a needy female student in the School of Nursing. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Nursing.

\* **THE STEVE PETERSON MEMORIAL BURSARY IN NURSING** — A bursary of at least \$1,000 will be awarded annually to a needy student in the School of Nursing, who has a strong academic record. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Nursing.

\* **MAYO SINGH-JOGINDER KOUR MAYO SAROYA MEMORIAL BURSARY** — A bursary of \$250 will be awarded annually to a needy student in the School of Nursing. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Nursing.

**THE HAROLD AND MYRA THOMPSON MEMORIAL BURSARIES** — Two bursaries of \$600 each will be awarded annually to needy students achieving an acceptable standing in Nursing 301 and 302, and demonstrating an interest in chronic and/or long term nursing. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Nursing.

#### Pacific and Oriental Studies

**THE CHINA EXCHANGE BURSARY** — In order to encourage student exchanges between the University of Victoria and East China Normal University, a bursary of \$500 will be awarded to a student from the University of Victoria attending the East China Normal University, or to a student from the East China Normal University attending the University of Victoria. Should unforeseen circumstances arise whereby no exchange is possible in a given year, the bursary may be awarded to a University of Victoria student who is enrolled in a program within the Centre for Pacific and Oriental Studies and who has demonstrated financial need, reasonable academic standing and an interest in the study of China. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Centre for Pacific and Oriental Studies.

#### Political Science

\* **THE SCOTT WALLACE BURSARY** — A bursary of four hundred dollars (\$400) will be awarded annually to a needy third year student majoring in Political Science who has demonstrated a sense of community responsibility and awareness of an obligation to serve society through active membership in various campus or community organizations. Although applications are not required for this bursary, students who consider themselves eligible for it are invited to communicate with the Chairman or Secretary of the Department. Selection will be made by the Senate Committee on Awards on the recommendation of the Department of Political Science.

\* Administered by the University of Victoria Foundation

**Social Work**

\* **THE ARTHUR C. ABRAHAMSON MEMORIAL BURSARIES** — Two bursaries of \$200 each will be awarded to a student in the Post Baccalaureate Bachelor of Social Work Program. The intent of the bursaries is to assist students who encounter severe financial difficulties in returning to full or part time studies. The bursaries are awarded in memory of Arthur C. (Art) Abrahamson who, as a consultant to the School of Social Work in its early years, was a source of immense help to students and faculty. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Social Work.

\* **THE JACK BARRACLOUGH BURSARY** — This bursary has been established by the Sara Spencer Foundation to honour devoted volunteer service to the Victoria Community by Jack Barracough. The bursary will be made annually to a student entering fourth year in the School of Social Work, who is in financial need and who has shown evidence of skillful and innovative social work practice in the third year practicum. The selection will be made by the Senate Committee on Awards upon the recommendation of the School of Social Work.

\* **THE JEAN MARIE SHERWIN BURSARY** — A bursary of five hundred dollars (\$500) is awarded to the student in the School of Social Work who has completed third year, is proceeding to fourth year and whose need for financial aid is such that the usual sources of assistance are not sufficient. Preference will be given to students with family responsibilities and whose permanent residence is outside Greater Victoria. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Social Work.

\* **THE SARA SPENCER FOUNDATION BURSARIES** — Four bursaries valued at \$1450 maximum each, will be awarded to third year students in the School of Social Work whose need for financial aid is such that the usual sources of assistance will not suffice. Preference will be given to students with family responsibilities and students whose permanent residency is outside Greater Victoria. Selection will be made by the Senate Committee on Awards in consultation with members of the School of Social Work.

**Theatre**

\* **THE FINLAYSON BURSARY** — A bursary of \$600, made available by Mr. Albert Winkel of Victoria, is offered to a second or third year student in the Department of Theatre who can show evidence of financial need and outstanding ability in the area of technical theatre and who is continuing his studies in the Department. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Theatre.

\* **THE W.D. WESTALUMNI BURSARY FUND** — Bursaries from this fund are to be awarded annually to continuing students primarily according to need. Preference will be given to students specializing in Design. Recipients should have demonstrated promise, industry and a reasonable academic standard. The recipients and the amounts of the awards will be determined by the Senate Committee on Awards upon the recommendation of the Department of Theatre.

**Visual Arts**

\* **THE JOHN DOBEREINER MEMORIAL BURSARY** — A bursary of at least \$400 will be awarded annually to a worthy and needy undergraduate student who plans to pursue a career in Art. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Visual Arts.

**THE HELEN PITT FUND BURSARIES IN FINE ARTS** — Two or more bursaries, up to a total value of \$3000, will be awarded annually to third year students in the Department of Visual Arts, who demonstrate merit and financial need. Preference will be given to full time Visual Arts students from and in the Municipal District surrounding Vernon, B.C. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Department of Visual Arts.

**VICTORIA CENTRAL LIONS CLUB — MILLARD H. MOONEY FINE ARTS BURSARY** — Four hundred dollars (\$400) awarded annually to a worthy and talented student registered in the Department of Visual Arts in the Faculty of Fine Arts in first, second or third year on condition that the student return to the University of Victoria the following year.

**SECTION 4****UNIVERSITY BURSARIES  
REQUIRING APPLICATION****A. UNDERGRADUATE BURSARIES FOR WHICH APPLICATION  
MUST BE MADE AT THE UNIVERSITY OF VICTORIA**

The bursaries listed in this section are open only to students who attended the University of Victoria in the Winter Session specified in this calendar. Application for these bursaries must be made before April 30, unless otherwise indicated, on forms available from the Student Financial Aid Services Office, Second Floor, University Centre.

**THE BIRKS FAMILY FOUNDATION** — The Birks Family Foundation has established a plan of annual contributions to the Student Aid Fund of recognized Canadian Universities for the creation of the Birks Family Foundation Bursaries. The Bursaries are awarded by the Foundation on the recommendation of the University Scholarship Committee and are not restricted to the faculty or year and may be renewed. The number and amount of such awards may vary annually, depending upon the funds available for this purpose from the foundation.

\* **THE GORDON CUTHBERT MEMORIAL BURSARY** — A bursary of \$100 will be awarded annually, in memory of James Gordon Cuthbert, who was a lifetime advocate of higher education. The award will be made to a student, on the basis of academic achievement and financial need, who has completed pre-medical studies at the University of Victoria and is proceeding to medical school the following September. Selection of the recipient will be made by the Senate Committee on Awards, after consultation with the family.

**THE DANIEL JACOB MEMORIAL BURSARY** — Through the generosity of the Alma Mater Society, a special fund has been established to commemorate Daniel Jacob, a student who died accidentally in November, 1981. The purpose of the fund is to assist financially students who may otherwise be forced to postpone or discontinue their academic career. All undergraduate students attending the University of Victoria who can demonstrate need may apply for assistance. If the circumstances warrant, bursaries may be granted for more than one year. Students may inquire about this fund at the Student Financial Aid Services Office and must arrange an interview with an officer.

\* **THE JUBILEE YEAR GRADUATING CLASS BURSARY FUND** — A bursary valued at four hundred dollars (\$400) will be awarded annually to a student enrolling in the graduating year and carrying a full course load. Students with an academic standing of second class or better will be considered if they demonstrate genuine need. The award is made available through the generous donations of graduating classes at the University. The 1978 Graduating Class has made a significant contribution to commemorate 75 years of higher education in Victoria.

**THE CHARLES CHAN KENT GOLDEN WEDDING ANNIVERSARY BURSARY** — A bursary of \$450, the gift of The Charles Chan Kent Foundation, is offered to students who are proceeding to a degree in any field, having successfully completed at least one year at the University of Victoria and in need of financial assistance. The bursary will be awarded to a student of Chinese extraction.

\* **THE DR. DOUGLAS H. TAYLOR LEE MEMORIAL BURSARY** — Five hundred and twenty-five dollars (\$525) awarded annually to a second or third year student planning a career in medicine with overriding preference given to a female student with first class honours standing. Selection of the recipient will be made by the Senate Committee on Awards, and the applicant must be studying in the general area of the basic medical sciences, on a premedicine program.

**PACIFIC COAST FISHERMEN'S MUTUAL MARINE INSURANCE COMPANY BURSARY** — A bursary of six hundred dollars (\$600) is offered by Pacific Coast Fishermen's Mutual Marine Insurance Company to sons, daughters and legal wards of past and present members of this Company. Applicants must apply on the University Scholarship Form. The application must be accompanied by a letter describing the family fishing history in general terms and detailing types of fishing and boat names. Selection will be made by the Committee on Awards in consultation with officials of the Company.

\* **THE STEVE PETERSON MEMORIAL BURSARY IN MEDICINE** — A bursary of at least \$1,000 will be awarded annually to a needy student following a Premedicine program at the University of Victoria, who has a strong academic record and has demonstrated interest in a career in

\* Administered by the University of Victoria Foundation.

medicine. Refer to pages 26/27 of the UVic Calendar for information on Preprofessional programs. Selection of the recipient will be made by the Senate Committee on Awards.

**THE VICTORIA MEDICAL SOCIETY BURSARY** — One thousand dollars (\$1,000) to be awarded annually to a second year student of outstanding merit and promise, who has a high general academic standing and qualities of character indicating worthiness to hold the bursary. Selection of the student will be made by the Senate Committee on Awards, and preference will be given to a needy student studying in the general area of the basic medical sciences, on a premedicine program.

**THE VICTORIA REAL ESTATE BOARD AWARDS** — \$750 awarded annually as a scholarship and \$750 awarded annually as a bursary, to students registered at the University of Victoria who are dependents of members of the Victoria Real Estate Board. Students registered at the University of Victoria who find that they must transfer to another university in order to complete their chosen program are eligible to apply for these awards. Selection of the recipients will be made by the Senate Committee on Awards.

\* **THE CHRISTOPHER E. WILKS MEMORIAL BURSARY FUND** — This fund was established by Mr. Harry Wilks in memory of his beloved son, Christopher, who died accidentally in December 1974. The purpose of the fund is to financially assist deserving students to pursue an academic career who otherwise may be forced to postpone or discontinue their studies. All undergraduate students attending the University of Victoria who can demonstrate need may apply for assistance. Should circumstances arise where more students apply for assistance than available funds will cover, the decision as to which students will receive assistance will be governed by the areas of study, with preference given to studies in the Humanities. If their financial circumstances continue to warrant such assistance, bursaries may be granted to the same students in subsequent years while attending the University of Victoria. Every applicant must be interviewed by an officer of the Financial Aid Office.

\* **THE FRANK WING MEMORIAL BURSARIES** — Awards will be given annually to students of Native Indian or oriental ancestry who demonstrate financial need. Students of other minorities will be considered (if there are no applicants from the two ancestral groups). The awards, donated by Caroline S. Chan, are available to students entering or continuing studies at the University of Victoria. Selection will be made by the Senate Committee on Awards. Band affiliation must be documented. Application must be made before September 30. Every applicant must be interviewed by an officer of the Financial Aid Office.

#### B. UNDERGRADUATE BURSARIES ADMINISTERED BY THE UNIVERSITY OF BRITISH COLUMBIA

Application forms for the following bursaries may be obtained in late March from the Office of Awards and Financial Aid, the University of British Columbia, Room 50, 2075 Wesbrook Place, Vancouver, B.C. V6T 1W5, and must be returned by May 15, unless otherwise indicated. Students competing for bursaries on the basis of attendance at the University of Victoria must forward an official transcript of their academic record preferably accompanying the application. Since some changes may have been made after this calendar went to press, you are urged to refer to the U.B.C. Calendar.

**BRITISH COLUMBIA FOREST PRODUCTS LIMITED BURSARIES** — Bursaries to a total of \$10,300, each with a maximum value of \$1,200, are offered by British Columbia Forest Products Limited to qualified legal dependents of employees who, by June 30th of the year in which the award is made, have or will have served with the Company for at least one year. The awards are open to students beginning or continuing studies in the fall in a full undergraduate program of studies at the University of British Columbia, the University of Victoria or Simon Fraser University. Winners of the Company's Entrance Scholarships will not be permitted to simultaneously hold a British Columbia Forest Products Limited Bursary. Applications must contain the necessary detail of family service with the Company.

**THE GLADYS LEDINGHAM AWARD** — A cash award of \$100, gift of the Victoria and District Parent-Teacher Council, is offered to students who are enrolled at the University of Victoria, the University of British Columbia or Simon Fraser University. It will be awarded to a student selected by the School of Librarianship, the University of British Columbia, who has been accepted for the Master of Library Science degree. The winner will be selected on the basis of need and scholastic ability.

**THE VICTORIA HOME ECONOMICS AND DIETETIC ASSOCIATION BURSARY** — This bursary of \$325, the gift of the Victoria Home Economics and Dietetic Association, will be awarded annually to a woman student whose home is in Victoria or some centre on Vancou-

ver Island, and who is entering the second, third or fourth year in the Department of Home Economics at the University of British Columbia. The award will be made on the basis of financial need to a student of good academic standing.

#### C. UNDERGRADUATE BURSARIES ADMINISTERED BY OTHER INSTITUTIONS AND ORGANIZATIONS

Application forms for the following bursaries are obtained by writing directly to the donor at the address provided in the terms of reference for the bursary. Deadlines for submitting completed application forms are also provided.

**HUGH CHRISTIE MEMORIAL BURSARY** — \$500 for students pursuing a career in Corrections, International Development, Social Work or YM-YWCA. Must be a full time student registered in the Faculty of Physical Education, Recreation, Social Work, Criminology or related fields. Application should be supported by letter(s) of reference. Application must be in writing, giving full particulars, i.e., name, address, age, together with reason for applying for this bursary (in 500 words or less). Send application to: Mr. Graham Christie, Chairman, Hugh Christie Memorial Bursary Committee, South Slope Family YMCA, 282 W. 49th Avenue, Vancouver, B.C., V5Y 2Z5. Closing date for applications is Mid-November.

**KIT DAVISON BURSARY ENDOWMENT FUND** — Administered by the Muscular Dystrophy Association of Canada, B.C. Region. This bursary has been established to honour Mrs. Davison. It is intended for students with muscular dystrophy who wish to continue their studies at any B.C. postsecondary institution. Criteria: Candidates must be registered with the Association, have completed Grade 12, and be a resident of B.C. Amount: \$500. Deadline for applications is August 1. Address: Suite 123, 1600 West 6th Avenue, Vancouver, B.C. V6J 1R3.

**THE INDEPENDENT ORDER OF FORESTERS HIGH COURT OF BRITISH COLUMBIA AND ALASKA** — A series of bursaries, to a maximum of \$500 each are offered to members in good standing for not less than two years, or the dependent thereof, of the Independent Order of Foresters. Applicants must reside in the jurisdiction of the High Court of British Columbia and Alaska (Province of British Columbia; State of Alaska).

Requests for application forms must be made to: Mr. G.A. Francey, High Secretary, High Court of British Columbia and Alaska, 1902 London Street, New Westminster, B.C., V3M 3E5.

Completed application forms must be returned to the High Secretary no later than August 31 of the current bursary year.

**THE INDEPENDENT ORDER OF ODD FELLOWS BURSARIES** — Six bursaries of three hundred dollars (\$300) each, provided by the Grand Lodge of British Columbia, I.O.O.F., the Grand Encampment, and the Rebekah Assembly are available annually for students in any year of any faculty. The awards will be made by a joint committee consisting of two representatives from each of the Grand Bodies. All applicants must have direct connection with one or more branches of the Order, through parents, grandparents, or close relatives. Special consideration will be given to applicants with financial need. Full details of the awards and application forms may be obtained from the Secretary of any Odd Fellows Lodge or Rebekah Lodge by May 1 so that they may be received by the Committee not later than May 15. All applications must be sponsored by an Odd Fellows Lodge, Rebekah Lodge, or Encampment. The above Committee will award annually an additional bursary of \$200 to a student in a recognized theological college of university status. This bursary will be known as the Dr. A.M. Sanford Memorial Bursary. Applicants will follow the same procedures as for all other I.O.O.F. bursaries, except the family connections with the I.O.O.F. will not be required.

**RUTH GARDNER AWARD** — The Gardner Award is presented annually to one or more University of Victoria students to undertake a project at Juan de Fuca Hospitals. The award of up to \$5,000 is intended to provide students with practical or research experience concerning the provision of health care for the elderly in the clinical environment of Juan de Fuca Hospitals.

The award is available to graduate or undergraduate students in Psychology, Social Work, Nursing, Public Administration and Health Information Science. The project will be carried out under the supervision of a faculty adviser and a hospital adviser. Criteria used to determine the award winner(s) will include merits of the proposed project and financial need of the applicant.

\* Administered by the University of Victoria Foundation.

**LEONARD FOUNDATION AWARDS** — The Leonard Foundation allocates each year a number of awards for which students at the University of Victoria are eligible. The awards are primarily intended to assist children of the clergy to attend University. Application forms, available from the Student Financial Aid Services Office, should be forwarded to the Secretary of the Foundation, Canada Trust Co., 20 Eglinton Ave. West, Toronto, Ontario, M4R 2E2, not later than March 31 of each year. Whenever possible these applications should be filed in February. The awards are made at the annual meeting of the General Committee on the fourth Friday in May.

**MAPLE RIDGE ARTS' COUNCIL BURSARY** — A bursary of \$1,000 is available to a Fine Arts student entering the second, third or fourth year of a degree or diploma program. Applicants must have graduated from School District No. 42 senior secondary schools and demonstrate financial need. It is also open to a mature student wishing to further his or her Fine Arts Education, but the applicant must have resided in the Maple Ridge area for five years. For more information and application forms, please contact the Maple Ridge Arts' Council, Box 331, Maple Ridge, B.C. V2X 7G2.

**THE PISAPIO BURSARY PROGRAM** — A bursary program to provide support to attend a recognized university for second, third, fourth and fifth year students and graduate students, whose homes are in Nelson, B.C.; within a fifty mile radius of Nelson, B.C.; or, in the East Kootenay regions. Applications must be received by the Pisapio Scholarships Trust, P.O. Box 804, Nelson, B.C. V1L 5S9, not later than September 25. A complete transcript of grades must accompany the application. Applicants will be notified of the results of this competition by October 25.

**PROVINCE OF BRITISH COLUMBIA INTERNATIONAL YEAR OF DISABLED PERSONS BURSARIES** — In recognition of the International Year of Disabled Persons, these bursaries were created to financially assist students with disabilities and will be awarded on merit and the basis of financial need. Several annual bursaries of \$500 each will be available. To be eligible, the disabled student must be a resident of B.C., a Canadian Citizen or Landed Immigrant. Application forms can be obtained by contacting the Grant Coordinator, B.C. Paraplegic Foundation, 780 S.W. Marine Drive, Vancouver, B.C. V6P 5Y7.

**THE ROBINSON AND BUCKLAND MEMORIAL BURSARY** — The Robinson and Buckland Memorial Bursary is sponsored by the Canadian National Institute for the Blind. Captain Merrill C. Robinson, blinded since 1917, was the Director of the Canadian National Institute for the Blind, B.C. - Yukon Division, from 1929 to 1964. His contribution towards the development of CNIB and services to the blind of B.C.-Yukon will long be remembered. Donald Channing Buckland, a graduate and distinguished faculty member of the University of British Columbia, was himself overtaken by blindness a few years before his death. Bursaries are issued a maximum of two times to applicants enrolled in a four year program and once to those enrolled in a two year program. The student must be registered with the CNIB. Application forms are available from the CNIB, and are to be submitted no later than August 15th, to the Executive Director, CNIB, 350 East 36th Avenue, Vancouver, B.C. V5W 1C6.

**THE ROYAL ARCH BURSARIES** — Several bursaries, up to \$500 each, have been established by the Royal Arch Masonic Order to give assistance to children of members in good standing, or of deceased members, of Chapters of the Order of British Columbia and Yukon Territory, who need assistance to continue their education by attendance at a recog-

nized University, the B.C. Institute of Technology, a regional or community college in B.C., or any other B.C. technical or vocational school, including approximately equal proportions to students entering their first year, those entering their second year, and those entering higher years. Applications must be made on the form to be obtained from the office of the Grand Chapter of Royal Arch Masons of British Columbia and the Yukon, Room 104, West 8th Avenue, Vancouver, B.C. V6H 1C9, or from secretaries of the Chapters in British Columbia and the Yukon, and must be completed and returned to the Grand Chapter office by July 15. The application must indicate clearly (a) the applicant's relationship to a member of the Royal Arch Masonic Chapter in B.C. or the Yukon, giving the name of the chapter and attaching a letter from the secretary of the chapter confirming this fact, and (b) the applicant's financial circumstances and that of his or her immediate family, including information as to the parent's income. Qualifying candidates will be required to have good academic standing. A transcript of the academic record must be submitted. However, consideration will be based primarily on the need of the applicant and secondarily on relative academic achievement.

**ROYAL CANADIAN LEGION (PACIFIC COMMAND) BURSARIES** — The Legion (Pacific Command) offers annually a number of awards for students proceeding from high school to university, and some awards for students entering second, third and fourth year. These bursaries are awarded on the basis of academic standing, financial need, and participation and achievement in student and community affairs. Preference is given to sons and daughters of deceased, disabled or other veterans, but applications from other worthy students are also considered. Further information may be obtained from Royal Canadian Legion, 3026 Arbutus Street, Vancouver, B.C. V6J 3Z2. The deadline date for application is May 31.

**ROYAL INLAND HOSPITAL FOUNDATION BURSARIES** — The Royal Inland Hospital Foundation provides four bursaries each year to graduates of secondary schools in the Thompson Nicola Regional District, who are planning a health related career. One bursary is \$1000/year for the remaining duration of the health program the student is enrolled in. The other three are one time bursaries of \$500. Once the successful applicants have been selected, the bursaries are disbursed after proof of registration in a health program is provided to the Foundation. Applications are obtainable from The Royal Inland Hospital Foundation, 311 Columbia Street, Kamloops, B.C. V2C 2T1 and must be submitted to the Royal Inland Hospital Foundation by May 31.

**THE DEREK SALTZBERG MEMORIAL BURSARY** — A bursary in the amount of \$500 has been established by the Saltzberg family. The bursary will be used to assist a student who has muscular dystrophy and is registered with the Muscular Dystrophy Association of Canada. The award is tenable at any postsecondary institution in British Columbia. Applications are available from the Muscular Dystrophy Association of Canada, B.C. Region, Suite 123, 1600 West 6th Avenue, Vancouver, B.C. V6J 1R3. Completed applications must be received by the Association by August 1.

**THE UNIVERSITY WOMEN'S CLUB OF THE COMOX VALLEY BURSARY** — A \$300 bursary is offered to a female graduate of a Comox Valley high school program who has completed at least one year of study in an accredited course at a Canadian university or community college. Further information may be obtained from Jean M. Galloway, Bursary Committee, 2677 Paula Place, Courtenay, B.C. V9N 6H9. Completed applications must be submitted by July 1.

## SECTION 5

### GRANTS, LOANS AND WORK-STUDY

#### A. GRANTS FOR RURAL STUDENTS

**UNIVERSITY OF VICTORIA FACULTY RURAL STUDENT GRANTS** — A number of \$1,000 grants are awarded annually to deserving students who are B.C. residents and who are registering at the University of Victoria for the first time. The awards will be based on demonstrated financial need, but in similar or identical cases, academic performance will be considered. A major determining factor will be the distance between the applicant's permanent home address and Victoria. To be considered, applicants must complete the British Columbia Student Assistance Program Application Form, available from the Student Financial Aid Services Office at the University of Victoria, and must submit it by July 30.

#### B. LOANS FOR ELIGIBLE STUDENTS

**PROVINCE OF BRITISH COLUMBIA LOANS** — The Government of the Province of British Columbia provides loans to assist students who are residents of this province to commence or continue an acceptable program, such as a first degree at the undergraduate or equivalent level, while registered in at least 60% of a regular full-time program. This is considered to be 9 units during the Winter Session (September to April) and 4½ units during the Summer (May to August).

The Provincial Loan Plan is administered in conjunction with the Canada Student Loan Plan and the two plans are known as The British Columbia Student Assistance Program (B.C.S.A.P.). Similar plans are in effect in other Canadian Provinces for students who are not considered to be residents of British Columbia.

The purpose of B.C.S.A.P. is to assist students whose resources are insufficient to cover the cost of full-time studies. Assistance under the

program is awarded when the financial resources available to students from parents, summer work or other sources are insufficient to meet estimated educational costs. Application forms for B.C.S.A.P. are available from the Student Financial Aid Services Office after April 1st, and should be returned by June 30th for the Winter and by March 15th for the Summer. Students who have not submitted their loan applications by September 1 can not expect to have their loans processed in time to meet fee payment deadlines and will not be exempt from paying any penalty charged for late payment or to be reinstated after having their registration cancelled.

**CANADA STUDENT LOANS PLAN** — The Government of Canada introduced this plan in 1964 to assist students who would be unable to pursue full time (60%) postsecondary studies without loan assistance. Currently the maximum amount of loan funds available is \$105 per week of study. Thus, a student studying for one 16 week semester may obtain a maximum loan of \$1680, while a student studying 40 weeks on a P.D.P.P. course may obtain a loan of \$4200.

No payments are made while the borrower is a full time (60%) student nor for six months thereafter. Interest during this period is paid to the bank by the Federal Government on behalf of the student. Payments commence six months after the borrower ceases to be a full time (60%) student. Borrowers are required to repay principal and interest by regular monthly instalments.

In no case may the repayment period exceed 9½ years from the date upon which you become liable to repay your debt.

Need for loan assistance is determined by Provincial Loan Authorities in accordance with administrative criteria established for use throughout Canada. In B.C., that authority is the British Columbia Student Loan Committee, Student Services Branch, 818 Broughton Street, Victoria, B.C. V8W 1E4.

A parental contribution table is an integral part of the criteria and is applied in all cases where the student has not established financial independence as defined under the plan. Students are expected to save a substantial amount of any income from summer employment. A student contribution table is used when net income from the summer exceeds \$3120.

As noted above, the Canada Student Loan Plan is administered in conjunction with the Province of British Columbia Loan Plan, known collectively as the British Columbia Student Assistance Program (B.C.S.A.P.). Application forms for B.C.S.A.P. are available from the Student Financial Aid Services Office after April 1, and should be returned by June 30 for the Winter and by March 1 for the Summer. Students who have not submitted their loan applications by September 1 can not expect to have their loans processed in time to meet fee payment deadlines and will not be exempt from paying any penalty charged for late payment or to be reinstated after having their registration cancelled.

**B.C. YOUTH FOUNDATION LOANS** — Students who do not qualify for Canada Student Loans because of high family income can inquire at the Student Financial Aid Services Office to determine their eligibility for assistance from this foundation. Loans are available to young persons up to 30 years of age who are residents of B.C. and who are able to obtain guarantors for the loans satisfactory to the Board of Directors of the B.C. Youth Foundation.

**P.E.O. SISTERHOOD EDUCATION LOAN FUND** — Women students in any year of a University course who do not qualify for Canada Student Loans, or who may find that their loan is not adequate for all their costs, may request a loan from this philanthropic organization at any time. Since the fund is administered from the U.S., prospective applicants should be prepared to wait up to three months before obtaining money.

Fourth year and graduate students may be granted the maximum amount of loan, which is \$3,500, in one year. Undergraduates may apply for and be granted the maximum loan of \$3,500 for two or more years of study but may draw only \$1,750 of the loan in one academic year. First year students must complete one term's work satisfactorily before making application. A loan may be considered for summer school.

Loans are made for periods of up to five years. Interest at the rate of 6% is to be paid annually, and the student is expected to begin repayment of the principal as soon as she is out of University and employed.

Students interested in finding out more about this loan fund are advised to make appointments with an adviser from the Student Financial Aid Services staff.

**THE UNIVERSITY OF VICTORIA EMERGENCY LOAN FUND** — The University of Victoria, through the Student Financial Aid Services Office, has a loan fund to assist students requiring financial assistance in emergency situations. The loans are interest free and therefore must be repaid as soon as possible. This loan fund is not designed to meet general education costs faced by all students but rather specific emergency items such as expenses involved in travelling to visit sick relatives. As a general rule adult guarantors are required to cosign the loan application, but this may be waived if the student leaves a postdated cheque for the full amount as security, or if the student is waiting for a government grant cheque which covers the loan. Students applying for an emergency loan must be interviewed by an adviser from the Student Financial Aid Services staff and must sign a loan agreement.

Contributions to the University loan fund have been made through the generosity of the following donors:

The University of Victoria President's Fund	\$17,500
The Peter Cubis Memorial Fund (Donated by A.M.S.)	9,000
The Alma Mater Society	5,000
The University Challenge Team Loan Fund	3,500
The Milva Reid Revolving Loan Fund	500
The University Extension Association Centennial Loan Fund	400
The John C. Lort Revolving Loan Fund	250

The donors and the University share the hope that students who have had help from this fund will themselves help others as their means may allow, either by contributing to one of the above funds, or by establishing similar funds.

### C. WORK STUDY

The Work Study Program is a component of the British Columbia Student Assistance Program (B.C.S.A.P.). It is designed to provide on campus work experience for students requiring financial assistance. Students at the University of Victoria demonstrating financial need and British Columbia residency, under the terms specified by B.C.S.A.P., will be considered for the Work Study Program.

The objectives of the program are to:

- (i) Aid students in reducing indebtedness incurred while pursuing post-secondary studies.
- (ii) Assist students in meeting additional costs that are not usually covered by the loan component of B.C.S.A.P.
- (iii) Assist in meeting shortfall of funds caused by the absence of expected students savings or expected parental/family contributions.
- (iv) Provide students with career related job experiences wherever possible.

The number of positions available to the University of Victoria are limited and therefore there is no guarantee of job placement for any student. Jobs under the program are administered according to internal policies and procedures established by the University of Victoria and may differ from policies established at other institutions.

Students wishing to be considered for a Work Study position must begin by completing an application for B.C.S.A.P. and submitting the form to the Student Financial Aid Services Office, Second Floor, University Centre. Financial need will be assessed and a loan award may be recommended. The money earned from a Work Study job may then be used either to reduce loan indebtedness, or to supplement the loan where additional need is demonstrated.

At the University of Victoria, a prospective Work Study applicant who has submitted a B.C.S.A.P. application will request an interview with a staff member of the Student Financial Aid Services Office. If the student is eligible and is prepared to fulfill the obligations incurred with the program, the applicant will be sent to the Canada Employment Centre on Campus for appropriate placement. The final decision on hiring will be made by the project supervisor.

It is recommended that prospective applicants wait until they have worked out their timetable for the year before applying for a Work Study position.

# SCHOLARSHIPS, MEDALS AND PRIZES

## GENERAL REGULATIONS

All inquiries concerning material in this section should be directed as follows:

Undergraduate Entrance Awards: Administrative Registrar  
Undergraduate Awards: Administrative Registrar  
Graduate Awards: Faculty of Graduate Studies

### Undergraduate Awards:

All undergraduate awards adjudicated by the University of Victoria are administered by the Senate Committee on Awards.

To be eligible for any scholarship offered by the University of Victoria, except the President's Scholarships for Part Time Undergraduate Students, an undergraduate student must take a full year's program. This is defined as 15 units of credit work of which 13 units must be graded. The standing of students who are registered in more than 15 units of courses will be determined on the basis of the grades of the best 15 units of courses. Physically handicapped students whose course load has been reduced on medical advice to fewer than 15 units are eligible to compete for awards administered by the University of Victoria on the basis of reduced course load. Applications should be made to the Administrative Registrar.

Except where the terms and conditions of an undergraduate award specifically state otherwise, award winners must normally return to the University of Victoria in the next winter session and enroll in a full program.

Deferral of an award for up to one year (except Faculty of Law, where up to two years may be permitted) may be granted on written application to the Senate Committee on Awards. Students who enroll in a full program and subsequently withdraw from courses, so that they fall below 15 units, will have the value of their award reduced accordingly, if the amount exceeds their assessed fees, and should note that they will only be eligible for part time awards in the following year.

### Graduate Awards:

All graduate awards are administered by the Faculty of Graduate Studies. To be eligible for graduate awards offered by the University, a graduate student must satisfy the terms and conditions established for individual awards by the Faculty of Graduate Studies.

Where applications are necessary for graduate awards, students should contact the Faculty of Graduate Studies to determine the relevant deadline dates.

### Regulations Governing All Awards:

The University reserves the right to limit the amount of money awarded to any student and, if necessary, to reassign awards to other students by reversion.

Except where the donor directs otherwise, the proceeds of awards is-

sued by or through the University will be applied towards the total tuition fees for the academic year. If the amount of the award or awards exceeds the unpaid fees for the academic year, the excess balance will be paid to the student only if registration in a full course load is maintained.

Other awards, such as medals or book prizes, if not presented directly by the donors or their agents, will be forwarded to the winners upon receipt.

Any award may be withheld or cancelled for any of the following reasons: lack of suitable candidates; failure to meet terms and conditions of the award; withdrawal from the University; withdrawal of the award by the donor.

## DEFINITIONS

- An award is any scholarship, fellowship, bursary, medal or prize.
- A scholarship or fellowship is a monetary award based on academic merit or excellence in the area to which the award pertains.
- A medal is an award based on academic merit or excellence in the area to which the award pertains.
- A prize is an award in the form of cash or of some tangible object such as a book, based on academic merit or excellence in the area to which the award pertains.

NOTE: Except where noted in the terms of reference, none of these above awards requires that the student discharge any duties for the University or any other agency. This applies to awards administered by the University of Victoria only.

## LIST OF AWARDS

The sections of the Calendar which follow show awards grouped under certain headings:

### Section 1: Entrance awards:

- Administered by University of Victoria. (See this page.)
- Administered by The University of British Columbia. (See page 272.)
- Administered by the Association of Universities and Colleges of Canada. (See page 273.)
- Administered by other institutions and organizations. (See page 274.)

### Section 2: Government of British Columbia Awards. See page 275.

Section 3: Undergraduate awards for which no application is necessary: selection of recipients is made by the Senate Committee on Awards. See page 277.

Section 4: Undergraduate awards for which application must be made to the Senate Committee on Awards. See page 291.

Section 5: Undergraduate awards administered by the University of British Columbia and other institutions and organizations. See page 293.

Section 6: Awards for graduate study. See page 296.

## SECTION 1

### ENTRANCE AWARDS

#### A. ENTRANCE AWARDS ADMINISTERED BY UNIVERSITY OF VICTORIA

Application forms for the following areas may be obtained from the Office of the Administrative Registrar, University of Victoria, Victoria, B.C., and must be returned by April 15, unless otherwise indicated. Names of winners will be announced by May 31.

**PRESIDENT'S ENTRANCE SCHOLARSHIPS** — Scholarships of \$2000 each are awarded annually to British Columbia secondary school graduates who are entering the University of Victoria. The awards will be made to students who achieve a total score of 2000 or higher on their best three Provincial Scholarship examinations. Recipients will be selected by the Senate Committee on Awards.

The President's Entrance Scholarships are named to recognize the contributions made by individuals when Victoria College became a University, and to recognize the Victoria College Class of 1903. The following list identifies these scholarships:

The Ernest William Arnott Memorial Scholarship  
The Honorable William Andrew Cecil Bennett Memorial Scholarship

The Judge Joseph Badenoch Clearihue Memorial Scholarship  
The Lloyd George McKenzie Scholarship  
The William Clark Mearns Scholarship  
The J. Richard Murray Scholarship  
The Captain George Ronald Newell Memorial Scholarship  
The Major-General George Randolph Pearkes Memorial Scholarship  
The Hugh Roulston Stephen Scholarship  
The Richard Biggerstaff Wilson Scholarship  
The Harry W. Young Scholarship  
The Lilian M. Mowat Memorial Scholarship  
The Kate Isabel Pottinger Memorial Scholarship  
The Clifford J. Rogers Memorial Scholarship  
The Sara Spencer Memorial Scholarship  
The Josephine Wollaston Memorial Scholarship  
The Freddie Wood Memorial Scholarship

**PRESIDENT'S REGIONAL ENTRANCE SCHOLARSHIPS** — Four scholarships of \$1500 are awarded annually within each college region in British Columbia to students with high academic standing and broad interests who are entering the University of Victoria directly from British Columbia secondary schools or regional colleges. Normally one of

the four scholarships is reserved for a college student. The assessment of the academic standing of the secondary school students will be based on both secondary school course and Provincial Scholarship examination results. The assessment of regional college students will be based on college course results.

A student may become a candidate for a scholarship either by applying in writing directly to the University of Victoria Senate Committee on Awards or by nomination solicited annually by the University from the principals of the secondary schools and community colleges in British Columbia. Recipients will be selected by the Senate Committee on Awards. Normally the names of award winners will be announced by May 31; final confirmation of the secondary school recipients will take place after the release of the Provincial Scholarship Examination results in the summer.

In order to increase the identification of each scholarship with a particular college region and to honour a person of regional historical significance, the scholarships are named after men and women who contributed to the advancement and development of the region and its people and who were highly respected members of their community. The following list identifies the scholarships for each region.

#### Camosun College:

- The Lim Li Bang Memorial Scholarship
- The Martin Grainger Memorial Scholarship
- The Sophie Theresa Pemberton Memorial Scholarship
- The Sister Mary Providence Memorial Scholarship

#### Capilano College:

- The Cates Family Memorial Scholarship
- The William and Catherine Keene Memorial Scholarship
- The Andy Paull Memorial Scholarship
- \* The Alfred Wallace Memorial Scholarship

#### Cariboo College:

- The Joseph and Judge Henry Castillou Memorial Scholarship
- The Louis Le Bourdais Memorial Scholarship
- The Norman Lee Memorial Scholarship
- The Doctor Masajiro Miyazaki Memorial Scholarship

#### College of New Caledonia:

- The Chief Kwah Memorial Scholarship
- The John McInnis Memorial Scholarship
- The Peter Skene Ogden Memorial Scholarship
- The Dr. Ross Stone Memorial Scholarship

#### Douglas College:

- The Arthur Wellesley Gray Memorial Scholarship
- The Thomas Haney Memorial Scholarship
- The Judge Frederic William Howay Memorial Scholarship
- The Ernie Winch Memorial Scholarship

#### East Kootenay College:

- The Honourable Frederick Aylmer Memorial Scholarship
- The Feuz Memorial Scholarship
- The Chief Isadore Memorial Scholarship
- The Tom Uphill Memorial Scholarship

#### Fraser Valley College:

- The Captain Lewis Nunn Agassiz Memorial Scholarship
- The John Alexander Catherwood Memorial Scholarship
- The Allen Casey Wells Memorial Scholarship
- The York Family Memorial Scholarship

#### Kwantlen College:

- The Thomas Kidd Memorial Scholarship
- The Alexander Dougal Matheson Memorial Scholarship
- The Steves Family Memorial Scholarship
- The William Templeton Memorial Scholarship

#### Malaspina College:

- The Mark Bate Memorial Scholarship
- The John Newell Evans Memorial Scholarship
- The Major Charles Ferguson Hoey Memorial Scholarship
- The Mayo Singh Memorial Scholarship

#### Northern Lights College:

- The Miss E.M. Claxton Memorial Scholarship
- The Doctor George Dawson Memorial Scholarship
- The Grant McConachie Memorial Scholarship
- The Hector Tremblay Memorial Scholarship

#### Northern Island College:

- The Eric Duncan Memorial Scholarship
- The Roderick Haig-Brown Memorial Scholarship
- The Chief Mungo Martin Memorial Scholarship
- The Chief Pasala Memorial Scholarship

#### Northwest College:

- The Dr. John Antle Memorial Scholarship
- The Jean Jacques Caux "Cataline" Memorial Scholarship
- The Margaret Hankin Loring Memorial Scholarship
- The Alice Tomlinson Memorial Scholarship

#### Okanagan College:

- The Susan Allison Memorial Scholarship
- The Father Charles Pandosy Memorial Scholarship
- The Francis Xavier Richter Memorial Scholarship
- The Honourable Forbes George Vernon Memorial Scholarship

#### Selkirk College:

- The Randolph William Diamond Memorial Scholarship
- The H.W. (Bert) Herridge Memorial Scholarship
- The John Fred Hume Memorial Scholarship
- The Reverend Henry Irwin "Father Pat" Memorial Scholarship

#### Vancouver Community College:

- The Won Alexander Cumyow Memorial Scholarship
- The David Oppenheimer Memorial Scholarship
- The Tsutae and Hanako Sato Memorial Scholarship
- The Mildred Valley Thornton Memorial Scholarship

\* **THE RALPH BARBOUR BURRY MEMORIAL SCHOLARSHIPS IN MUSIC** — Three scholarships in varying amounts (minimum award \$500) are awarded annually to Music students. Preference will be given to entering students in any year. The awards will be based on excellence in music. In the case of two equally gifted candidates, need will be the determining factor. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **THE L. AND G. BUTLER SCHOLARSHIPS FOR THE DISABLED** — An award of six hundred dollars (\$600) is made annually on the basis of academic performance to a disabled student attending the University of Victoria. The recipient may be a newly admitted or returning student. Students interested in this scholarship should refer to the paragraph on undergraduate scholarship eligibility in the General Regulations, above. Application forms may be obtained from the Office of the Administrative Registrar and must be submitted by April 15. Selection of the recipients will be made by the Senate Committee on Awards.

#### CANADIAN UNION OF PUBLIC EMPLOYEES SCHOLARSHIPS

— The C.U.P.E. will provide annual scholarships of \$250 each to five promising and deserving students who will register in the First Year at the University of Victoria. Students must have obtained first class or a good second class standing on their Senior Secondary statement of marks issued for graduation. These scholarships are open only to sons or daughters of members of contributing locals of the Canadian Union of Public Employees of the Greater Victoria area. Recipients will be selected by Committee on Awards in consultation with officials of the C.U.P.E. Scholarship Fund. Applications must be submitted not later than July 31.

**THE C.H. DOWLING MEMORIAL AWARD** — An award of \$500 is made annually to a native Indian student who is a resident of British Columbia and is entering the University of Victoria directly from Grade 12 or a regional college. Selection will be made by the Senate Committee on Awards on the basis of scholastic achievement; preference will be given to a student entering a program in the Humanities or the Social Sciences. The award may be renewed.

#### FACULTY OF ENGINEERING: DEAN'S ENTRANCE SCHOLARSHIPS

— A number of scholarships of \$2000 each will be awarded annually to students with high academic standing who are entering the Faculty of Engineering at the University of Victoria directly from British Columbia secondary schools or regional colleges. The assessment of academic standing of the secondary school students will be based on secondary school course results while assessment of regional college students will be based on college course results. Recipients will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering. Normally the names of award winners will be announced by May 31.

**ALDYEN HAMBER IODE ENTRANCE SCHOLARSHIP** — Six hundred dollars (\$600) awarded annually to a deserving woman student entering the first year at the University of Victoria. Applicants must write the British Columbia Scholarship examinations. Selection of the recipient will be made by the Senate Committee on Awards after consultation with the donor.

**THE HARBORD COMPANY SCHOLARSHIP** — Five hundred dollars (\$500) awarded annually to the most promising scholar leaving School District No. 61, entering the Faculty of Fine Arts at the Univer-

\* Administered by the University of Victoria Foundation.

sity of Victoria and intending to specialize in Music. Selection of the winner will be made by the Committee on Awards after consultation with the appropriate officials of School District 61 and the School of Music.

**THE HONDA CITY CITIZENSHIP AWARD** — An award of \$1,000 is made annually to a student who is graduating from secondary school with at least a B average and who is entering year 1 of any course of study at the University of Victoria. A candidate must be a resident of the Capital Regional District and must demonstrate a record of good citizenship through participation and leadership in any one or a combination of community activities, student organizations and sports. Applications or nominations must be received in writing by the Administrative Registrar before April 15. Selection of the successful candidate will be made by a committee consisting of the Director of Student Services, the Vice-President, Academic or his designate and two members of the community nominated by Honda City.

\* **THE WILLARD E. IRELAND ENTRANCE SCHOLARSHIP** — A scholarship of approximately \$1000 will be awarded annually to an outstanding student entering the School of Music at the University of Victoria. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

**LABATT BREWERIES OF BRITISH COLUMBIA LIMITED SCHOLARSHIP** — A scholarship of seven hundred and fifty dollars (\$750) is provided by Labatt Breweries of British Columbia Limited to be available for students who are resident in British Columbia and who are proceeding directly from Grade 12 to a full course of study at the University of Victoria. The winner will be selected by the Senate Committee on Awards on the basis of scholastic standing, character and participation in school and community affairs. Candidates must be eligible in all respects to compete for Government scholarships and must write the Government scholarship examinations, conducted by the Ministry of Education.

\* **MADAM SOONG CHING LING MEMORIAL SCHOLARSHIP** — An Award of \$5000 is made annually to a student from the People's Republic of China who is studying at the University of Victoria. The selection of the recipient will be made by the Chinese People's Association for Friendship with Foreign Countries.

- N.B.:
- i) The student must satisfy the usual university admission requirements in terms of academic standards and English language ability.
  - ii) The award can be renewed; the Association will decide annually whether to renew the award or to recommend a new recipient.
  - iii) The recipient's tuition fees will be covered to the amount of \$1,500 by the Ian and Gillian Stewart Scholarship (see below).

\* **THE JOHN LOCKE MALKIN ENTRANCE SCHOLARSHIPS** — Up to six awards of either \$4000 or \$2500 are made annually to students of exceptional academic promise entering the University of Victoria from secondary school and/or college. The awards of \$4000 will be reserved for students of extraordinary academic promise. Candidates must have a very strong academic record in their last two years of study. If a student maintains a grade point average of 7.50 or better, the scholarship is automatically renewed (and could be increased with exceptional performance) for each year of the student's full time study (15 units) until completion of a first degree or for a maximum of five years, whichever is the shorter period. A student whose grade point average falls between 7.00 and 7.49 may file a written appeal with the Senate Committee on Awards to seek special consideration for the renewal of the scholarship. No renewal will be considered if a student's average falls below 7.00. A student holding a \$4000 Malkin award may not concurrently hold any other award administered by the University. A student holding a \$2500 Malkin award may not concurrently hold any other award administered by the University having a value greater than \$1500. In extenuating circumstances a student may, upon application to the Senate Committee on Awards, defer the acceptance of the initial scholarship or may defer the renewal of a scholarship for a maximum of one year.

A student may become a candidate for the scholarship either by applying in writing directly to the University of Victoria Senate Committee on Awards giving the name of his or her school together with the principal's name or by nomination solicited annually by the University from principals of secondary schools and colleges. The completed set of application and nomination material must be received by the University no later than April 15. Normally award winners will be announced by May 31.

\* **T.S. McPHERSON ENTRANCE SCHOLARSHIPS** — Up to ten T.S. McPherson Scholarships to commence in September of each year will be awarded to students of exceptional promise entering the University of

Victoria directly from British Columbia secondary schools or regional colleges; normally two of the ten scholarships will be reserved for regional college students. Eight of the scholarships will have a value of \$2500. The other two will have an annual value of \$4000 and will be reserved for the two candidates the Committee feels are the most outstanding each year. If a student maintains a grade point average of 7.5 or higher, the scholarship will be automatically renewed for each year of a student's full time study (15 units) until the completion of a first degree or for a maximum of five years, whichever is the shorter period. A student whose grade point average falls between 7.0 and 7.49 may file a written appeal with the Senate Committee on Awards to seek special consideration for renewal of the scholarship. No renewal will be considered if a student's grade point average falls below 7.0. A student holding a \$4000 T.S. McPherson Scholarship may not hold concurrently any other award administered by the University. A student holding a \$2500 T.S. McPherson Scholarship may not hold concurrently any other award administered by the University having a value greater than \$1500. In extenuating circumstances a student may, upon application to the Senate Committee on Awards, defer the acceptance of the initial scholarship or may defer the renewal of a scholarship for a maximum of one year. Candidates must have a very high academic record in their last two years at secondary school and/or regional college. Secondary school candidates must have achieved outstanding scores on the British Columbia Provincial Scholarship examinations. Approximately fifteen candidates will be selected by the University of Victoria Senate Committee on Awards for personal interviews during May on the basis of their results in academic courses and recommendations by the principals of their schools and colleges as to their academic excellence, breadth of interests and leadership qualities.

A student may become a candidate for the Scholarship either by applying in writing directly to the University of Victoria Senate Committee on Awards giving the name of his or her school together with the principal's name or by nomination solicited annually by the University from the principals of the secondary schools and community colleges in British Columbia. The completed set of application and nomination material must be received no later than April 15.

Awards will be made by May 31 and may have dollar values further increased as a consequence of very high Provincial Scholarship examination results.

\* **PERFORMANCE SCHOLARSHIP IN MUSIC** — One or more awards are made annually to student(s) for outstanding achievement in performance. The recipients may be newly admitted or returning students. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music's Performance faculty.

\* **THE DOUGLAS ROSS MEMORIAL SCHOLARSHIP** — An award of four hundred dollars (\$400) is made annually to a student for outstanding achievement in piano performance. The recipient may be a new or a returning student. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **THE SCHOOL OF PHYSICAL EDUCATION ENTRANCE SCHOLARSHIP** — A scholarship of \$300 will be awarded annually to an outstanding student transferring into the School of Physical Education from a college or university. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

**THE IAN AND GILLIAN STEWART SCHOLARSHIP** — An award up to the amount of tuition fees, but not exceeding \$1,500, is made annually to the student selected to receive The Madam Soong Ching Ling Memorial Scholarship.

**THE DAISIE THIRLWALL SCHOLARSHIPS IN VIOLIN** — Up to three scholarships in varying amounts are awarded annually to gifted violinists who demonstrate excellence or potential in performance and who are registered in the Bachelor of Music program. Preference will be given to newly admitted students. In the event there are no qualified violinists in any given year, other string instrumentalists will be considered. In the case of equally qualified candidates, need shall be the determining factor. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* Administered by the University of Victoria Foundation.

**B. ENTRANCE AWARDS, ADMINISTERED BY THE OFFICE OF AWARDS AND FINANCIAL AID, THE UNIVERSITY OF BRITISH COLUMBIA, 2075 WESBROOK PLACE, VANCOUVER, B.C. V6T 1W5**

*Some changes in the following awards may have been made after this Calendar went to press. Please refer to the University of British Columbia Calendar.*

**Entrance Scholarships which must be applied for, on the appropriate U.B.C. form, by May 15 unless otherwise stated.**

**BRITISH COLUMBIA FOREST PRODUCTS LIMITED ENTRANCE SCHOLARSHIPS** — Six scholarships in the amount of \$1,200 each are offered by British Columbia Forest Products Ltd., to qualified legal dependents of employees who by June 30 of the year in which the award is to be made have had not less than one year of service with the Company. The awards are open to students proceeding in the fall from Grade 12 to a full course of studies at the University of Victoria, University of British Columbia, Simon Fraser University and the University of Alberta for dependents of Alberta employees. The awards will be based on the student's high school transcript. No award will be made to an applicant with an overall average of less than 70%. The scholarship may be deferred for a period of one year, but only for certified medical reasons. Application for deferment must be made to the University Awards Office at the time the award is made.

**DAIRY INDUSTRY CREDIT UNION SCHOLARSHIPS** — Two scholarships in the amount of \$500 each have been offered by the Dairy Industry Credit Union to students who are beginning or continuing a full program of studies at the University of British Columbia, or Simon Fraser University, University of Victoria, the B.C. Institute of Technology or a B.C. regional college. To be eligible, an applicant must be the son, daughter, grandson or granddaughter of an active member of the Dairy Industry Credit Union. The Scholarship will be awarded to the candidate who, in the opinion of the University, in consultation with the Credit Union, is best qualified in terms of academic merit and financial need. Where possible, one scholarship will be offered to a student attending one of the Universities and the second, to a student attending B.C.I.T. or a regional college.

**TELECOMMUNICATIONS WORKERS UNION, THE THOMAS WARD STANLEY MEMORIAL SCHOLARSHIP** — The Telecommunications Workers Union offers a scholarship of \$1000 to sons and daughters of members (with at least twelve months continuous service) or of deceased members (with the same service). It is open in competition to students proceeding in the fall from Grade XII of secondary school to a full program of studies at the University of British Columbia, University of Victoria, Simon Fraser University, B.C.I.T., or any accredited regional college in B.C. To be eligible for consideration a candidate must have an overall average of at least 75% in the subjects of the grade in which the candidate is registered. Candidates will be considered on the basis of standing received by high school graduation. The winner will be selected by the University of British Columbia, in consultation with the Union, from those who so qualify. In the final selection, a major factor will be the financial circumstances of applicants and their families. Applications must contain details of family service with the Union and other pertinent information. The successful applicant will not be eligible for any other Telecommunications Workers Union Scholarships.

**TELECOMMUNICATIONS WORKERS UNION SCHOLARSHIPS** — Three scholarships in the amount of \$750 each are made available by the Telecommunications Workers Union, for sons and daughters of members, with at least 12 months continuous service (or of deceased members with the same service). They are open in competition to students proceeding in the Fall from Grade 12 to a full program of study at the University of British Columbia, the University of Victoria, Simon Fraser University or B.C.I.T. To be eligible for consideration, a candidate must have an overall average of at least 75%. Candidates will be considered on the basis of their high school transcript. The winners will be selected by the University of British Columbia in consultation with the Union, from those who so qualify. In the final selection, a major factor will be the financial circumstances of applicants and their families. Applications must contain details of family service with the Union and other information.

**THE WILLIAM L. HURFORD MEMORIAL SCHOLARSHIP** — A scholarship of \$1000, offered in memory of William L. Hurford by the British Columbia Maritime Employers' Association, is open to sons and daughters of members, in good standing, of the International Longshoremen's and Warehousemen's Union. The scholarship will normally be awarded to the candidate who is proceeding in the fall to a full program of studies at The University of British Columbia, University of Victoria, Simon Fraser University, or a regional college in B.C. The do-

nors reserve the right to withhold the award if the academic standing of candidates is not sufficiently high or to reaward the the scholarship if the winner receives other scholarships of substantial value.

**THE INTERNATIONAL LONGSHOREMEN'S AND WAREHOUSEMEN'S UNION ENTRANCE SCHOLARSHIPS** — Four scholarships of \$500 each are offered to members, and sons and daughters of members, in good standing, of the International Longshoremen's and Warehousemen's Union. They will normally be awarded to the candidates who are proceeding in the fall to a full first year program of studies at Simon Fraser University, The University of British Columbia, the University of Victoria, or any accredited regional college in B.C. The donors reserve the right to withhold awards if the academic standing of candidates is not sufficiently high, or to reaward scholarships if winners receive other scholarships of substantial value.

**THE PIPING INDUSTRY JOURNEYMAN TRAINING AND INDUSTRY PROMOTION FUND** — Two scholarships of \$500 each, provided by the Trustee Board of the Journeyman Training and General Industry Promotion Fund, are offered annually to students entering the first year at any British Columbia university or regional college, and proceeding to a full program of studies leading to a university degree in any field. To be eligible a candidate must be (a) the son, daughter, or legal dependent of a member of the United Association of Plumbers and Steamfitters, Local 170, who is employed by a firm which is a contributor to the Fund or (b) the son, daughter or legal dependent of an employer who is a contributor to the Fund. Normally, one \$500 award is made to category (a) and one to category (b). These awards are based exclusively on academic achievement. Any student who is an eligible candidate as described above and who is eligible to enter a British Columbia university or regional college is a potential candidate for these awards. The Trustees reserve the right to withhold an award if candidates do not obtain sufficiently high standing or if they receive other major awards.

**THE UNITED FOOD & COMMERCIAL WORKERS' UNION, LOCAL 1518, SCHOLARSHIPS** — Five scholarships of \$800 each are offered to students beginning or continuing studies in a full academic program at the University of British Columbia, the University of Victoria, Simon Fraser University, the British Columbia Institute of Technology, or at a regional college in B.C. Three awards will be made to students entering from Grade XII and two awards will be made to continuing students. The awards will normally be made to applicants with the highest standing in the final examinations. Students entering from Grade 12 will be considered on the basis of final marks needed for university or college entrance. To be eligible for consideration, a candidate must have an overall average of at least 75% in the subjects of the grade or year in which the candidate is registered. To be eligible, a candidate must be a member, or the son, daughter, or legal ward of a member of the Union in good standing. Those who wish to be considered must give full details of their own or their parents' membership in the Union.

**RETAIL, WHOLESALE UNION, LOCAL 517, SCHOLARSHIP** — This scholarship of \$250 is offered to dependents or legal wards of members of Local 517. It is open to competition to applicants who are proceeding from Grade 12 to any accredited University or College of British Columbia, in a full program leading to a degree or diploma. To be eligible for consideration an applicant must have a satisfactory academic standing (normally 75% or better average). In the selection of the winner the basic factor will be the academic standing of the applicant. Should there be a tie the financial need of the applicant and the applicant's family shall be the deciding factor. The winner will be selected in consultation with the Union.

**THE VANCOUVER SUN SCHOLARSHIP FOR SUN CARRIERS** — The Vancouver Sun offers annually two scholarships of \$500 each to students proceeding from Grade 12 to the first year at The University of British Columbia, the University of Victoria, Simon Fraser University or B.C.I.T. To be eligible, applicants must have been carriers of the Vancouver Sun for at least two consecutive years. The awards will normally be made to students with the highest standing based on their final secondary school transcript but in no case will an award be made to a student who obtains a standing of less than 75%. Winners of these scholarships who, in successive years of their undergraduate courses maintain first class standing (or rank in the top 10% of their year and faculty) will be eligible for renewals of \$500 a year until graduation, not exceeding a total of five payments in all. Holders of this scholarship will not be precluded from enjoying the proceeds of other awards, however, a student may not simultaneously hold this scholarship and the Vancouver Sun Special Scholarship for Carriers. The application must be accompanied by the Service certificate of the Vancouver Sun.

**UNITED ASSOCIATION OF PLUMBERS AND STEAMFITTERS, LOCAL 170, SCHOLARSHIPS** — Two scholarships of \$500 each are

provided annually by the United Association of Plumbers and Steamfitters, Local 170, to students entering first year at any public university in British Columbia, and proceeding to a degree in any field. To be eligible, a candidate must be the son, daughter or legal dependent of a member in good standing of the United Association of Plumbers and Steamfitters, Local 170. The Union reserves the right to withhold an award if candidates do not obtain sufficient high standing or if they receive other major awards.

**THE VANCOUVER SUN SPECIAL SCHOLARSHIP FOR SUN CARRIERS** — The Vancouver Sun offers annually a scholarship of \$500 to a student proceeding from Grade 12 to the first year at The University of British Columbia, the University of Victoria and Simon Fraser University or the British Columbia Institute of Technology. To be eligible, an applicant must have been a carrier for the Vancouver Sun for at least two consecutive years. An applicant will be considered only if he obtains an overall average of 75% based on his final secondary school transcript. The scholarship will be awarded to the eligible applicant who, in the opinion of the Selection Committee, is the most outstanding in combining high scholastic attainment and achievement in one or more areas such as service to the school and community; writing, drama, fine arts; debating in public speaking; sports. The winner of this scholarship who, in successive years of his undergraduate courses maintains first class standing (or ranks in the top 10% of his year and faculty) will be eligible for renewals of \$500 a year until graduation, not exceeding a total of five payments in all. A holder of this scholarship will not be precluded from enjoying the proceeds of other awards, however, a student may not simultaneously hold this scholarship and the Vancouver Sun Scholarship for Sun Carriers. The application must be accompanied by the Service certificate of the Vancouver Sun.

**C. ENTRANCE AWARDS ADMINISTERED BY THE ASSOCIATION OF UNIVERSITIES AND COLLEGES OF CANADA**

**A.U.C.C. AWARDS** — A number of entrance awards are administered by the Association of Universities and Colleges of Canada. Students are eligible to apply for the following awards by virtue of their parents' employment with the relevant donor companies. All awards are tenable for any recognized full time degree course at any Canadian university or college which is a member of the Association of Universities and Colleges of Canada. Candidates must be prepared to enter university in the year of competition. The closing date for receipt of completed applications is June 1. The conditions regarding student averages vary for each scholarship; however, candidates must send results of the last two years of secondary school to the A.U.C.C. as soon as they are available. The awards are as follows:

Name	Value of Scholarship	Number Available
Air Canada	1,000	Canada 8 U.S.A. 1 Other countries 1
Allied Canada	1,500	1
Allied Chemical	1,500	up to 3
AMCA International	1,000	unspecified
American Can		
— University	2,000	2
— Community College	1,500	2
Amoco Canada Petroleum Ltd.	1,000	10
Bell Canada	1,250	15 Ontario 9 Quebec
Bendix Heavy Vehicle Systems Inc.	1,500	1
Bendix Engine Components Ltd.	1,500	1
Bristol Myers Pharmaceutical		
— University	1,200	1
— College	600	1
Bristol-Myers Products Canada		
— University	1,200	1
— Community College	600	1
Browning-Ferris	1,500	2
Canada Cement Lafarge Limited		
— University	1,000	6
— Community College	1,000	6
Canadian Gypsum Company Limited	1,000	1
Canadian Occidental Petroleum Limited	1,500	4
Societe Canadienne de Metaux	750	Plan 1-4 Plan 2-2
Reynolds Limitee		

Canadian Tire		
— University	1,500	1
— Community College	700	1
Canron Limited (Howard J. Lang)	1,000	3
Cargill Limited		
— Scholarship	1,000	1 English 1 French
— Prize	1,000	1 English 1 French
	500	
	500	
CE Canada		
— University	1,200	5
— Community College	600	4
Celanese Canada Inc.	1,000	8
Chevron Limited	1,000	5
Clairol Canda		
— University	1,000	1
— Community College	500	1
Companie Internationale de Papier du Canada	1,000	7
Compagnie Miniere IOC	1,000	4
Consolidated-Bathurst/C.B. Pak Inc.	1,000	14
Consumers Glass Company Limited		
— University	1,500	unlimited
— Community College	600	
Continental Can Canada Foundation	2,000	3
Continental Group	1,000	2
Cyanamid		
— University	1,000	3
— Community College	500	
Distilleries Corby Limitee	1,500	4
Domtar		
— Ontario	1,000	4
— Quebec	1,000	4
— Other provinces and U.S.A.	1,000	3
— Spouses	1,000	1
Dow Jones	1,000	1
Dresser Harbison Foundation Inc.	1,000	2
Fessenden-Trott	5,000	4
Fisher Scientific Co. Limited	1,500	1
Fram Canada Inc. (Stratford)	1,500	1
Gannett Foundation	1,500	1
Gaz Metropolitan	1,000	15
Gulf Canada Limited		
— Scholarships	1,500	15
— Prizes	500	20
Gulf Minerals		
— Scholarship	1,500	1
— Prize	500	1
Harry C. Bates-Allied Craftsmen		
— First Place	600	2
— Second Place	400	2
Hoechst Canada Inc.	1,000	7
Holophane	1,000	1
Honeywell Limited		
— University	500	6
Husky Oil Operations Limited		
— University	1,500	1
— College	750	1
IBM		
— University	1,800	12
— College	900	6
Imasco Limited	1,500	10
Indusmin Limited		
— University	1,000	3
— Community College	400	3
Ingersoll-Rand Company Limited	1,500	3
Interprovincial Pipe Line		
— University	1,400	unspecified
— Community College	700	
Johns-Manville Canada Inc.	1,000	1
Kidd Creek Mines	Tuition, compulsory fees, and \$1000	25
Kraft Inc.	1,500	3
Lever Brothers Limited	1,500	3
Life Underwriters Association of Canada	750	4

Metropolitan Life Insurance Company	1,200	5
MacMillan Bathurst Inc.	1,000	3
R.J.R. MacDonald	1,000	5
Mobil Oil Canada Limited	750	up to 4
Motorola Canada Limited	1,000	1
National Sea Products Limited	1,500	5
PPG Industries Canada Limited	1,000	2
Proctor & Gamble Inc.	1,000	10
Compagnie Miniere Quebec Cartier	750	6
Quebec Telephone	1,000	2
Queen Elizabeth Endowment Fund	5,000	Max. 6
+ travel		
Rexnord	750	1
Richardson Scholarship		
— Category "A" (University)	1,000	10
— Category "B" (College)	500	3
Rothmans Limited		
— University	1,000	Max. 3
— Community College	500	Max. 3
Sara Lee	1,500	2
Scott Paper Limited		
— University	1,000	2
Sears Canada Ltd.	1,000	10
Sperry Inc.	1,000	unspecified
St. Lawrence Seaway Authority	1,000	2
Stanfield Foundation (Robert & Mary)	5,000	2
+ 1,000 (for travel, tuition or books)		
State Farm Insurance Centennial Scholarship	750	2
Suncor Inc.		
— University	1,000	10
— College	500	
Telebec Ltee.	1,250	1
Teleglobe Canada Inc.	1,500	1
Texaco Canada Inc.	Tuition and compulsory fees	35
Transportation Club of Toronto	1,000	1
Via Rail	500	4
Warner-Lambert Canada Limited	1,250	unspecified
Westfair Foods Limited	1,200	1
Westinghouse Canada	1,000	6
Weyerhaeuser Canada Limited	1,000	up to 2
Witco Chemical Canada Limited	1,500	1
World Book-Childcraft	1,000	1
Wrigley Canada Limited		
— University or Community College	1,000	1
Xerox Canada Inc.	1,500	Max. 5

Candidates for the above awards should write directly to Scholarship Administration Services, A.U.C.C., 151 Slater Street, Ottawa, Ontario K1P 5N1.

#### D. ENTRANCE AWARDS ADMINISTERED BY OTHER INSTITUTIONS AND ORGANIZATIONS

**THE B.C. ASSOCIATION OF TEACHERS OF CLASSICS SCHOLARSHIP** — An annual award of \$100 will be given by the president of the University of Victoria to the leading student in British Columbia Latin 12 who registers at the University of Victoria for a first year course in Latin. An additional \$50 will be given by the B.C. Association of Teachers of Classics. Application to compete should be made through the B.C.A.T.C. Scholarship Committee on forms available from: Mr. F.W. Robinson, President, B.C. Association of Teachers of Classics, 605-2151 West 39th Avenue, Vancouver, B.C. V6M 1T6.

**COMINCO HIGHER EDUCATION AWARDS** — Cominco Ltd. offers awards each year to the sons, daughters, or wards of a person who is regularly employed by Cominco, or of a widow whose husband died while regularly employed by Cominco or a Cominco pensioner or his widow to encourage students of good scholastic accomplishment to continue their education at an institution of higher learning beyond high school or senior secondary school. Cominco shall offer each year two classifications of awards to children of employees who are students enrolled in a high school or senior secondary school leaving course, preparatory to attendance at an institution of higher education. Class I awards, in the amount of \$500 each, shall be awarded to all students who make application and who have obtained an 86% or better standing, or

corresponding letter grade, in their high school leaving course. Class II awards, in the amount of \$350 each, shall be awarded to all students who make application and who have obtained an average in the 73% to 86% range, or corresponding letter grade, in their high school leaving course. Applicants for these awards must be planning to attend an accredited Canadian university or college to pursue any course of study which will lead to a recognized degree, or must be planning to attend a recognized junior or regional college, or must be planning to enroll at a recognized provincial institute of technology. In the case of the latter institutions, these must be accredited by or under the supervision of provincial departments of education and where the course of study would lead to a recognized diploma or certificate. Courses of study must be of at least two years duration and will not be applicable when a student would be in receipt of remuneration while also undertaking study. Complete details regarding eligibility as well as application forms may be obtained from: The Secretary, Scholarship and Education Awards Committee, Cominco Ltd., Trail, B.C. The application must be returned no later than September 15.

**THE TERRY FOX HUMANITARIAN AWARDS** — In keeping with the spirit of his achievements, the Terry Fox Humanitarian Award Program is intended to encourage Canadian youth to seek the high ideals represented by Terry Fox by the granting of commemorative scholarships for the pursuit of higher education. The Government of Canada has provided an initial \$5 million endowment fund for this purpose.

The Terry Fox Scholarship is a renewable award, subject to satisfactory progress, and is tenable at any Canadian university or college. The value of each award is \$3000 annually, for a maximum of four years or until a first degree is obtained. For candidates attending an educational institution in provinces where no tuition fee is applicable, the award value is \$2000.

The awards will be of particular interest to graduating secondary level students and those currently studying towards a first degree or diploma in a Canadian university or college. Scholarship candidates must be Canadian citizens or have applied for citizenship at the time of award consideration. As many Scholarships will be granted each year as the number of creditable candidates who apply, with the total number awarded each year limited by the interest from the investment of the \$5 million endowment. Candidates must qualify in the province or territory in which they are ordinarily resident. The field of study is open and at the discretion of the successful candidate.

Selection criteria for recipients will be based on demonstration of the highest ideals and qualities of citizenship and humanitarian service while in pursuit of excellence in their academic, amateur sport, fitness, health, community service and related endeavours. A Selection Committee will nominate deserving candidates to the corporation's Board of Directors. The Board is solely responsible for the final determination of successful candidates. Applications will be considered either directly or through academic institutions. Recommendations for scholarship assistance made by institutions will be an important factor in the final selection process.

The Board of Directors reserves the right to cancel any award before payment has been made where the candidate has failed to meet the conditions of this program. The tenure of the Scholarship is dependent upon the maintenance by the student of a standard of work and conduct which, in the opinion of the Board of Directors, justifies the Scholarship. For further information or scholarship application forms, please contact: Terry Fox Humanitarian Award Program, 711-151 Sparks Street, Ottawa, Ontario K1P 5E3. Deadline for submission of application is February 1.

**DR. L.M. GREENE SCHOLARSHIP** — This scholarship will be in the amount of \$500 and is awarded annually to a former Prince Rupert Senior Secondary School student who is interested in pursuing a vocation in any of the Health Care fields. Application forms are available from The Administrator, Prince Rupert Regional Hospital, 1305 Summit Ave., Prince Rupert, B.C., V8J 2A6.

**IMPERIAL OIL HIGHER EDUCATION AWARDS** — Imperial Oil Limited offers annually free tuition and other compulsory fees to the children of employees and annuitants who proceed to higher education courses. Initial awards, or renewal of awards, are restricted to students under twenty-five years of age on the date of registration for any undergraduate year.

To qualify, a student must attain an average mark of 70% or higher in the appropriate secondary school examinations in the subjects required for admittance to the approved institution, or must have attained an average of 70% or more in a college year upon which application is based.

Courses may be taken at any Canadian university or other approved institutions of higher learning, and awards are tenable for a maximum of four academic years, or the equivalent, at the undergraduate or bachelor

degree level. The four levels of academic years are measured from the first year of entering a postsecondary institution.

Further information and application forms may be obtained from The Secretary, Committee on Higher Education, Imperial Oil Limited, 111 St. Clair Avenue West, Toronto, Ontario M5K 1K3.

**DR. R.G. LARGE SCHOLARSHIP** — This scholarship is in the amount of \$500 and is awarded annually to a former Prince Rupert Senior Secondary School student upon enrollment in a registered nursing program at either a Community College or University. Application forms are available from The Administrator, Prince Rupert Regional Hospital, 1305 Summit Ave., Prince Rupert, B.C., V8J 2A6.

**TRANS-MOUNTAIN OIL PIPELINE CO. HIGHER EDUCATION AWARDS** — Up to five Higher Education Awards will be offered annually by the Trans-Mountain Oil Pipeline Company to sons, daughters and legal wards of regular employees and annuitants, deceased employees, and deceased annuitants. To be eligible a student must attain a minimum standing of 70% in the appropriate secondary examination in the subjects required for admittance to approved institutions. Each award is tenable for a maximum of four academic years. Selection of winners will be made by The University of British Columbia from applicants who are entering a full program of studies at the University of Victoria, The University of British Columbia, Simon Fraser University, or the British Columbia Institute of Technology. The value of award payments shall equal the tuition and other compulsory fees for the academic year. No portion of an eligible fee which is paid by a government shall be included in the amount paid as awards by the company. Further information and application forms may be obtained from the Division Offices or the Personnel Dept. and forwarded to: The Trans-Mountain Higher Education Awards Committee, c/o The Royal Trust Company, P.O. Box 2031, Vancouver, B.C. V6B 3R7. Applications must be submitted by August 31.

**THE UNIVERSITY OF VICTORIA SCIENCE FAIR AWARD** — The President of the University will award \$150 to the winner of the Senior Division of the Greater Victoria Regional Science Fair. The award is tenable only when and if the winner registers in a full program of studies at the University of Victoria.

**VICTORIA MECHANICAL TRADE PROMOTION FUND SCHOLARSHIP** — Provides a scholarship of three hundred dollars (\$300) each year, based on academic standing only with no reference to financial status or income. The award is open to students entering first year at the University of Victoria. Applicants must be sons, daughters or legal dependents of members of the United Association of Plumbers and Steamfitters, Local 324, who are employed by firms who are contributors to the Victoria Mechanical Trade Promotion Funds as provided in the Collective Agreement. Applicants may also be sons, daughters or legal dependents of employers who employ members of the United Association of Plumbers and Steamfitters, Local 324 and who are contributors to the Victoria Mechanical Trade Promotion Fund. Further information may be obtained from Mr. E.M. McCaffery, Secretary Manager, B.C. Branch, Canadian Plumbing and Mechanical Contractors Association, 1128 West Georgia Street, Vancouver, B.C. V6E 3H9. Applications must be submitted by June 30.

**VICTORIA WOMEN'S CANADIAN CLUB SCHOLARSHIPS** — (1) One hundred and fifty dollars (\$150) awarded to the female student attending a public high school in Greater Victoria School District (No. 61) who makes the highest standing in the B.C. Government Scholarship Examinations, and registering for a full year course in the University of

Victoria or The University of British Columbia, the following September. (2) One hundred and fifty dollars (\$150) awarded to the male student in Greater Victoria School District making the highest standing in the same examinations and under the same conditions. Should the student, in either case, be awarded a scholarship from any other source, the Club Scholarship shall then revert to the student having the next highest standing. Correspondence concerning this award should be addressed to the Superintendent of School District 61.

**THE ROYAL WESTMINSTER REGIMENT ASSOCIATION SCHOLARSHIPS** — Two scholarships of \$250 each, the gift of the Royal Westminster Regiment Association, will be awarded annually to worthy and deserving students who are continuing their formal education beyond secondary school in recognized institutions of higher learning in any place within Canada or outside Canada. To be eligible, applicants must be direct descendants, male or female, of a member of the Royal Westminster Regiment Association, or a member of the Royal Westminster Regiment CA (M) or one of those battalions which the Royal Westminster Regiment perpetuates, i.e., the 47th, 104th, or 131st. The scholarships are also open to applicants who are at the time of application serving members of the Royal Westminster Regiment. The applicants may be in their final year of secondary school or any year of post-secondary study, and may be resident in any place within Canada or outside Canada. The basis of the award will be academic standing in previous studies and need of financial assistance. The Application for Scholarship Form is obtainable from the Scholarship Committee. The Royal Westminster Regiment Association, Box 854, New Westminster, B.C. The cut-off date for application is July 31.

**THE HON. W.C. WOODWARD UNIVERSITY MEMORIAL SCHOLARSHIPS** — These scholarships, each of \$600 per year, and renewable annually in the same amount at the beginning of each undergraduate year (up to a maximum of five payments in all), are offered in competition to sons, daughters, and legal dependents of regular full time staff, or retired staff (retired on Store pension), and of deceased staff (who died while a Woodward's regular full time staff member). Three of these scholarships are available for attendance at the University of Alberta, University of Calgary, or The University of Lethbridge, and four are available for attendance at The University of British Columbia, The University of Victoria, or Simon Fraser University. They are open to applicants, beginning University attendance for the first time, and entering from Grade XII or XIII of secondary school (or any other source provided they are qualified for admission). Alberta candidates must write the Government Scholarship Examinations conducted by the Provincial Ministry of Education. Awards will be made on the basis of (a) academic standing, (b) activity and interest in youth programs, organizations and athletics within school and community, and (c) personal qualities, character and demonstration, during attendance at school, of citizenship, leadership, and service. Annual renewals are subject to maintenance of satisfactory academic standing, progress, and conduct. Application forms are available from the Personnel Offices of all Woodward's Stores from February 1 onwards and must be completed and returned to Woodward's by July 15. Applicants must include the official transcript of the Secondary School record. If the transcript is not available by July 15, it must be forwarded by the student at the earliest possible date after July 15, directly to the Administrator of Students Awards Office, The University of Alberta, Edmonton, by the Alberta applicants, or the the Chairman, Joint Faculty Committee on Prizes, Scholarships and Bursaries, The University of British Columbia, Vancouver V6T 1W5, by the B.C. applicants.

## SECTION 2

### GOVERNMENT OF BRITISH COLUMBIA AWARDS

**BRITISH COLUMBIA CULTURAL FUND AWARDS** — Students planning to attend recognized institutions in the cultural field should apply directly to the Scholarship Officer, British Columbia Cultural Fund, Cultural Service Branch, Ministry of Tourism, Recreation and Culture, Parliament Buildings, Victoria, B.C.

Assistance is available for the following disciplines and related arts: theatre (acting, directing, technical), music (performance, composition), visual arts and crafts, dance (performance, choreography), creative writing, museological and conservation studies, arts administration.

Areas not recognized include: language study, fashion design, interior design, architecture, fine arts education or health programs, commercial film making, history of the arts, and general art appreciation.

### Winter Study Awards

Junior Awards up to \$1000 (for full time winter studies).

Senior Awards up to \$2000 (for full time winter studies).

Assist study (mainly tuition) costs of outstanding and talented B.C. students pursuing serious training. Awards are paid, generally, to recognized and advanced schools, on behalf of the student.

Terms:

Junior Awards:

Tenable for a maximum of 4 years of full time study, up to and including 2nd year of a university or community college program;

Preference is given to students attending fine arts schools, colleges, universities and academies in British Columbia or other Canadian provinces.

**Senior Awards:**

Tenable for a maximum of 4 years of full time study for course work/programs after completion of 2nd year at university undergraduate or full time postgraduate degree, or professional diploma programs:

At recognized postsecondary institutions or academies without restriction of country/location.

Student must be majoring in a program and should be of first class ability and standing in all course work.

A portfolio must be submitted with the application.

**General Information:**

Applications are received once a year on or before June 30 for assistance in the following winter study season (September-June).

Three letters of reference (submitted on forms provided with application form) are required commenting on the applicant's talents, ability, potential, character or financial need.

A letter of acceptance from the institution the student will be attending, together with certification of fees.

A recent statement of academic grades to be provided by the student.

Information regarding all other scholarship assistance must be provided each year the student holds a scholarship.

All supporting documentation to the application form must be received in the CSB offices by July 15. If, for some reason, a document cannot be provided by that date, a letter outlining circumstances must accompany the application form.

Cultural Fund support in any given year cannot be regarded as a guarantee of similar support the year following. Each year's application form is considered on its merits.

Recipients of tuition awards must advise the Scholarship Officer, in writing, of changes in their study intentions, place of study, etc.

Awards are not retroactive or applicable to past studies.

**PREMIER'S ATHLETIC AWARDS**

The highest athletic award granted by the Provincial Government, the Premier's Athletic Award is designed to encourage world class athletes to train and compete in British Columbia. Applicants must complete an application form and submit it along with a personal letter of application which outlines the applicant's projected training and competitions in the next year. Application forms are available from the appropriate Provincial Sport Governing Body at 1200 Hornby Street, Vancouver, B.C. V6Z 2E2, telephone 687-3333.

**Eligibility:**

British Columbia athletes who train and compete in B.C. for a minimum of six months, who are ranked in the top eight in the world in an Olympic event or who are members of a Canadian team ranked in the top four in an Olympic sport and who have been resident in British Columbia for one year.

**Value:**

\$2,500

**Number of Awards:**

Depends on number of eligible athletes

**Selection:**

Applications are reviewed by a Selection Committee appointed by the Minister responsible for the sport.

**BRITISH COLUMBIA ATHLETIC AWARDS**

Awards given in this category encourage B.C. athletes to compete in Olympic, Pan-American, and Commonwealth Games, and in Olympic level competition for the disabled.

**Eligibility:**

Athletes who have lived in British Columbia for the past year, are immediately below national team level in an Olympic, Commonwealth Games or Pan-American Games sport, and who are recommended by the appropriate provincial sport governing body.

**Value:**

\$1,500 maximum for students, \$1,800 for others

**Number of Awards:**

Approximately 200 in various sports

**Selection:**

Recommendations of sport governing bodies are reviewed by the Athlete Assistance Coordinator.

**Contact:**

Appropriate sport governing body at the B.C. Administrative Centre for Sport, Recreation and Fitness, 1200 Hornby Street, Vancouver, B.C. V6Z 2E2, telephone (604) 687-3333.

**UNIVERSITY SPORTS AWARD PROGRAM**

The Ministry of Universities, Science and Communications funds the University Sports Award Program. Athletes participating in the follow-

ing varsity sports may be eligible: basketball (men and women), cross country (men and women), diving (men and women), field hockey (women), football (men), golf (men), gymnastics (men and women), ice hockey (men), rowing (men and women), rugby (men), skiing (men and women), soccer (men), swimming (men and women), track and field (men and women), volleyball (men and women) and wrestling (men).

The head of the athletic department is the person candidates should contact regarding eligibility within the University Sports Award Program. Eligible varsity athletes will be awarded \$1,000 each.

**NANCY GREENE SCHOLARSHIPS**

Twenty-six Nancy Greene Scholarships, valued at \$1,000 each will be awarded annually to those British Columbia students who best combine the qualifications set out hereunder. Students currently registered in a senior secondary school (including independent and private schools) in British Columbia who plan to pursue an educational program at any designated postsecondary educational institution in the Province of British Columbia are eligible to apply. Applicants must show evidence of:

1. athletic ability and performance
2. scholastic achievement and goals (a minimum of C+ is mandatory in order for the application to be considered)
3. leadership and character and
4. school and community participation and citizenship.

Applicants are requested to complete the application form and submit it along with a personal letter of application, to the principal of their secondary school. The letter of application must outline scholastic and athletic achievements in Grades XI and XII only, educational goals, and school and community activities in which the applicant has participated. It should be typewritten or written in black ink on 8½x11 inch paper and should be limited to no more than three pages. The principal's office is required to mail:

1. the student's application form
2. the student's personal letter of application
3. the principal's own confidential supporting letter certifying the student's participation in school and community activities, both athletic and nonathletic; and
4. a copy of the student's completed "Recommendation for Early Processing" form

Applications will be reviewed by a Selection Committee appointed by the Physical Fitness and Amateur Sports Fund. Up to five athletes for this scholarship may be recommended by the Committee to receive the Premier's Athletic Award. The scholarships will be made available to successful applicants after proof they have been accepted by the institution concerned and have registered, provided they are not in receipt of a similar or other major award of more than \$1,050.

All applications and supporting letters must be postmarked not later than May 1 and are to be addressed to:

Nancy Greene Scholarships,  
Physical Fitness and Amateur Sports Fund,  
Parliament Buildings, Victoria, B.C.,  
V8V 1X4

**QUEEN ELIZABETH II BRITISH COLUMBIA CENTENNIAL SCHOLARSHIP**

To commemorate the visit of Her Majesty Queen Elizabeth II to British Columbia in May of 1971, during the Centennial celebrations, the Government of the Province established the Queen Elizabeth II British Columbia Centennial Scholarship.

The scholarship is administered by the Chief of Protocol of the Province. An advisory Committee evaluates candidates for the scholarship and advises the Provincial Secretary and Minister of Government Services of its recommendations. The Advisory Committee consists of representatives of the Ministry of Provincial Secretary and Government Services, the Ministry of Education and each of the three public universities of the Province.

Number and value of scholarships — One major scholarship is available each year for study, commencing in the fall of that year. The scholarship has a total value of \$20,000. Normally the scholarship will be awarded in the amount of \$10,000 each year for two successive years of study, but the committee may, in exceptional circumstances, award the full sum of \$20,000 for one year of study. In exceptional cases in which the scholarship winner finds it necessary to undertake a third year of postgraduate study to complete his training, he may apply during the second year of such studies for an additional scholarship of \$10,000. In addition to the

major scholarship, two minor scholarships of \$4,000 each are available for the two top runners up to the major winner each year.

**Eligibility and tenability** — The scholarship will be awarded each year on a competitive basis to a graduate of Simon Fraser University, the University of British Columbia, or the University of Victoria:

- (a) who is a graduate of or graduates from a public university of British Columbia having attended that or another British Columbia public university for a minimum of two years;
- (b) whose domicile or ordinary residence is in the Province;
- (c) who is a Canadian citizen;
- (d) who, in the opinion of the Advisory Committee, is a person of unusual worth and promise and qualifies under the regulations; and
- (e) who proposes to conduct the studies for which the scholarship is awarded at an institution in the United Kingdom.

**Basis of selection** — The Advisory Committee will make its recommendations on the basis of academic achievement, demonstrated aptitudes, personal qualities and character, interest and participation in university and community affairs, and proposed programs of study.

**Successful candidates** — A successful candidate shall:

- (a) follow the proposed program of study outlined in his application. If a candidate wishes to follow an alternative program of studies he shall apply to the Advisory Committee for approval of that program;
- (b) obtain admission to an institution in the United Kingdom equivalent to a faculty of graduate studies at a Canadian university;
- (c) maintain a satisfactory standing as required by the institution he is attending; and
- (d) submit a progress report, including any final grades that are available every six months for the duration of the period of his studies.

**Payment of scholarships** — The major scholarship shall be paid in four

or six equal sums, as the case may be, at each September and January from the commencement of studies. The minor scholarships shall be paid in two equal sums, one at the commencement of each academic year of studies.

**Submission of application** — All inquiries, applications and documents pertaining to this Scholarship must be forwarded directly to:

The Chief of Protocol,  
Ministry of Provincial Secretary and Government Services,  
Parliament Buildings,  
Victoria, B.C., V8V 1X4

(Area code 604 387-4376)

Applications must be forwarded postmarked not later than January 15 in the year for which the scholarship is being offered. Documents and applications which cannot be returned, become the property of the Advisory Committee.

**Documents to be submitted** —

1. Each applicant must arrange for official transcripts of his post-secondary academic record to be forwarded directly to the Chief of Protocol from the registrars of the institutions concerned.
2. Each applicant must arrange for at least three letters of reference which must be forwarded directly from the persons writing them. At least two of the letters of reference must be from persons who have taught the applicant at the undergraduate level.
3. Each applicant must complete the application form and forward it, along with a letter which includes
  - (a) his interest and participation in college and community affairs;
  - (b) his special achievements and hobbies;
  - (c) his proposed program of studies, including the name of the institution he will be attending;
  - (d) his future career plans; and
  - (e) any further information which he feels is relevant to the application.

## SECTION 3

### UNDERGRADUATE AWARDS FOR WHICH NO APPLICATION IS NECESSARY

The awards listed in this section are open only to students who attend the University of Victoria in the regular Winter Session specified in this calendar. They are awarded automatically on the basis of merit or on nomination by departments and applications from students are not required unless otherwise indicated. Except where the terms and conditions of an undergraduate award specifically state otherwise, award winners must normally return to the University of Victoria in the next winter session and enroll in a full program. Deferral of an award for up to one year (except Faculty of Law, where up to two years may be permitted) may be granted on written application to the Senate Committee on Awards. Students who enroll in a full program and subsequently withdraw from courses, so that they fall below 15 units, will have the value of their award reduced accordingly, if the amount exceeds their assessed fees, and should note that they will only be eligible for part time awards in the following year.

#### For Heads of the Graduating Classes

**THE GOVERNOR GENERAL'S MEDAL** — The Governor General's Medal is awarded annually to the candidate in the Faculty of Arts and Science, registered for a B.A. or B.Sc. degree, who stands at the head of the graduating class on the basis of the graduating average.

**DR. MAXWELL A. CAMERON MEMORIAL MEDALS AND PRIZES** — The British Columbia Teachers' Federation annually offers a silver medal and a prize to the student completing the final year of the B.Ed. degree (secondary program), who achieves the highest standing in general proficiency with a first class standing in practice teaching. A similar award is made to a student in the B.Ed. elementary program. Selection of the students is left to the Faculty of Education, University of Victoria.

**THE LAW SOCIETY GOLD MEDAL AND PRIZE** — A gold medal, presented by the Law Society of British Columbia, will be awarded to the student obtaining the highest aggregate marks in the three years of study in the Faculty of Law. In addition, the Society will pay the student's Call and Admission Fee.

**THE UNIVERSITY OF VICTORIA JUBILEE MEDAL** — This medal is awarded to the student in the Faculty of Arts and Science, registered

for the B.A. or B.Sc. degree, who stands at the head of the Graduating Class on the basis of the graduating average in the degree category which does not include the winner of the Governor General's Medal. The award was established by the 1978 Graduating Class in recognition of the University's Jubilee Year.

\* **VICTORIA MEDAL** — A silver medal presented by Professor S.W. Jackman in memory of Edward Tatton Anfield will be awarded annually to the candidate in the Faculty of Fine Arts, registered for a B.A., B.F.A. or B.Mus. degree, who stands at the head of the graduating class on the basis of the graduating average.

#### Undergraduate Awards — General

\* **THE J. ALAN BAKER MEMORIAL SCHOLARSHIP** — An award of \$250 is made annually to a deserving and promising student in an Honours program who is continuing into third or fourth year at the University of Victoria. Selection will be made by the Senate Committee on Awards.

\* **THE BRITISH COLUMBIA 1958 CENTENNIAL SCHOLARSHIP** — One thousand two hundred dollars (\$1,200) to be awarded annually to a student who has completed at least one year at the University of Victoria and who is continuing University studies in the Province of British Columbia. The award will be made on the basis of scholastic achievement and effective participation in campus activities.

\* **MARY HANNAH COOPER SCHOLARSHIP FUND** — An annual award of six hundred dollars (\$600) will be made to a worthy and deserving student. The selection will be made by the Senate Committee on Awards.

\* **MATTHEW COWAN ANNUAL SCHOLARSHIP** — Three hundred dollars (\$300) awarded annually to a promising student with high academic standing. The winner must continue at the University of Victoria.

**PERCY H. ELLIOTT MEMORIAL SCHOLARSHIP** — Eight hundred dollars (\$800) awarded to a student of outstanding merit and promise in one specific field of study, who has also a high general academic standing and qualities of character indicating worthiness to hold the scholarship. The scholarship is awarded, upon the recommendation of the Committee on Awards, to a student in the first or second year, proceeding immediately towards a degree.

\* Administered by the University of Victoria Foundation.

\* **THE ROBERT S. EVANS MEMORIAL SCHOLARSHIPS** — Nine scholarships of seven hundred dollars (\$700) will be awarded annually to academically outstanding students who intend to continue their studies at the University of Victoria as follows:

- (a) One scholarship to a student in each of the Programs: Child and Youth Care, Nursing, and Social Work, on the recommendation of the respective Directors;
  - (b) One scholarship to a student who has completed Year III in an Astronomy program;
  - (c) Five scholarships for award within the student body at large.
- If no suitable candidates can be found in categories (a) or (b), additional awards can be made in category (c).

\* **THE FRANK AND MARGARET GIBBS SCHOLARSHIPS** — Scholarship of up to three hundred dollars (\$300) each will be awarded in Arts, Science, Fine Arts and Education, on the basis of distinction in scholarship. Award winners must continue academic work at an approved university.

**KIWANIS SCHOLARSHIP** — Four hundred dollars (\$400) awarded to a student completing the first year and entering the second year at University of Victoria. Selection of the recipient to be made by the Senate Committee on Awards in conference with the Kiwanis Club of Victoria.

\* **THE HAZELT. KNOX MEMORIAL SCHOLARSHIP** — Two awards of five hundred dollars (\$500) awarded annually to deserving and promising students in an honours program and continuing into the third or fourth year at the University of Victoria. If funds permit, additional awards of a similar nature will be made by the Senate Committee on Awards.

**THE PRATT-SHORT MEMORIAL SCHOLARSHIP** — Five hundred dollars (\$500) awarded annually to a student with broad interests completing second year.

**THE PRESIDENT'S SCHOLARSHIPS** — A number of scholarships will be awarded annually by the Senate Committee on Awards. The awards will be made in Arts and Science, Education, Engineering, Fine Arts, and Human and Social Development on the basis of scholarship. Awards will be made to approximately the top 3% of full time students (15 units) in each of the named faculties. The value of the awards will vary in relation to the dollar value of other awards administered by the University of Victoria that the students receive. Award winners must normally return to the University of Victoria in the next winter session and enroll in a full program. Deferral of an award for up to one year (except Faculty of Law, where up to two years may be permitted) may be granted on written application to the Senate Committee on Awards. Students who enroll in a full program and subsequently withdraw from courses, so that they fall below 15 units, will have the value of their award reduced accordingly, if the amount exceeds their assessed fees, and should note that they will only be eligible for part time awards in the following year.

**THE PRESIDENT'S SCHOLARSHIPS FOR PART TIME UNDERGRADUATE STUDENTS** — A number of scholarships will be awarded annually by the Senate Committee on Awards to approximately the top 3% of students registered in between 9.0 and 14.9 units in any combination of two terms in the twelve month period from May through April. All work taken in the year will be considered in determining the award winners. The awards will be made in Arts and Science, Education, Engineering, Fine Arts and Human and Social Development on the basis of scholarship. The value of the awards will vary in relation to the dollar value of other awards administered by the University of Victoria that the students receive. Award winners must return to the University of Victoria for further undergraduate credit work within twelve months.

\* **THE EDWARD J. SAVANNAH MEMORIAL SCHOLARSHIP** — Six hundred and seventy-five dollars (\$675), subscribed by his friends and former students, to be awarded annually to students proceeding to third year science at the University of Victoria or elsewhere.

**UNIVERSITY EXTENSION ASSOCIATION OF VICTORIA SCHOLARSHIP** — Three hundred dollars (\$300) to be awarded to a worthy and promising student who is returning to the University of Victoria in the following year.

**THE UNIVERSITY OF VICTORIA REVUE AWARDS** — Three awards of one hundred dollars (\$100) each are made annually to students who have made outstanding contributions to the performances of large on campus productions such as those associated with the UVic Revue and the Music Theatre Workshop. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendations of the Department of Theatre and the Department of Art and Music Education.

\* **THE UNIVERSITY OF VICTORIA FACULTY SCHOLARSHIPS** — Approximately 60 scholarships of \$500 are awarded annually on the basis of academic standing. The fund for these awards was established by donations of University of Victoria faculty members and professional librarians. Selection of the recipients will be made by the Senate Committee on Awards.

**THE UNIVERSITY OF VICTORIA FACULTY ASSOCIATION SCHOLARSHIPS** — Two scholarships, of five hundred dollars (\$500) each, to be awarded annually to further the education of students of good academic standing.

**UNIVERSITY WOMEN'S CLUB SCHOLARSHIP** — Six hundred dollars (\$600) awarded to the woman student taking the highest standing in her first year of Arts and Science, and continuing her course in the second year at the University of Victoria or at any other university, provided the course desired is not available at this University. When a student wishes to attend a university outside Canada, the reasons for such attendance should be submitted to the Scholarship and Bursary Society of the University Women's Club for approval.

**THE VICTORIA COUNCIL, UNITED COMMERCIAL TRAVELERS OF AMERICA SCHOLARSHIP** — Two hundred dollars (\$200) awarded annually to the leading student of the Humanities in the second year. The winner must continue university studies.

\* **THE R. T. WALLACE COMMEMORATIVE SCHOLARSHIP** — Five scholarships of \$1,400 each are awarded annually to outstanding students entering one of the final two years of undergraduate studies of the faculties of Education, Fine Arts and Human and Social Development; two scholarships will be awarded in the Faculty of Arts and Science — one to a student enrolled in a B.A. program and one to a student enrolled in a B.Sc. program.

\* **THE WESTAD SCHOLARSHIP** — This scholarship of five hundred dollars (\$500) is awarded annually to a deserving student completing first or second year and continuing University studies.

**THE WOODWARD STORES, LIMITED, SCHOLARSHIP** — Two hundred and fifty dollars (\$250) to be awarded annually to an outstanding student completing first or second year and continuing University studies.

**THE WOODS TRUST SCHOLARSHIP** — Awarded annually to promising students at the University of Victoria who intended to pursue studies as undergraduates at the university or as postgraduate students at other universities or educational institutions or at any industrial or commercial concern engaged in the field of electrical engineering or in any allied field in the physical sciences. The scholarships are valued at five hundred dollars (\$500) each.

#### **Undergraduate Awards Listed by Course or Area of Study**

##### **Anthropology**

\* **THE GRAND POST OF THE NATIVE SONS OF B.C. — BRUCE McKELVIE SCHOLARSHIP** — Two hundred and fifty dollars (\$250) to be awarded annually to a third year Anthropology student with the highest standing in a course relating to Anthropology in B.C. The student must be a Canadian citizen and must return to the University of Victoria in the next regular session.

\* **THE PETT AWARD IN ARCHAEOLOGY** — A scholarship of five hundred and fifty dollars (\$550) will be awarded annually to a student who is a Canadian citizen and who has successfully completed at least one course in Archaeology at the University of Victoria, in order to assist the recipient to do field or laboratory work in British Columbia archaeology. The selection will be made by the Senate Committee on Awards upon the recommendation of the senior instructor in Archaeology in the Department of Anthropology.

##### **Astronomy**

\* **THE ROBERT S. EVANS MEMORIAL SCHOLARSHIPS** — Nine scholarships of seven hundred dollars (\$700) will be awarded annually to academically outstanding students who intend to continue their studies at the University of Victoria as follows:

- (a) One scholarship to a student in each of the Programs: Child Care, Nursing, and Social Work, on the recommendation of the respective Directors;
  - (b) One scholarship to a student who has completed Year III in an Astronomy program;
  - (c) Five scholarships for award within the student body at large.
- If no suitable candidates can be found in categories (a) or (b), additional awards can be made in category (c).

\* Administered by the University of Victoria Foundation.

**THE DON INGHAM MEMORIAL SCHOLARSHIP** — This scholarship of \$400 is awarded annually by the Victoria Newspaper Guild, Local 223, A.N.G., in memory of Don Ingham, widely known journalist and amateur astronomer. The scholarship will be awarded to the top student in Astronomy 200A/B, who is returning to the University of Victoria and planning to take further courses in Astronomy.

**THE VICTORIA CENTRE OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA BOOK PRIZE** — A book prize up to the value of \$50, selected by the recipient, will be awarded annually to the student graduating with an Honours B.Sc. in Astronomy, with the highest graduating average, provided that this is at least a first class average. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the appropriate faculty member in the Department of Physics.

#### **Biochemistry and Microbiology**

**THE TERRY FOX SCHOLARSHIP** — An award of \$750 is made annually by the Victoria Real Estate Board to an outstanding student who is in the third year of a program of Biochemistry and Microbiology and who has indicated an interest in the area of cancer research. This award is also tenable at a medical school. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Biochemistry and Microbiology.

\* **THE CHARLES HUMPHREY MEMORIAL SCHOLARSHIP IN MICROBIOLOGY** — An award of \$2500 is made annually to an outstanding student proceeding to year 3 or 4 of an Honours or Major program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Biochemistry and Microbiology.

**ISLAND MEDICAL LABORATORIES BOOK PRIZE IN BIOCHEMISTRY** — A book prize is presented annually to the most outstanding student enrolled in 200 level courses in Biochemistry. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Biochemistry and Microbiology.

**THE MOLSON COMPANIES SCHOLARSHIPS** — A scholarship of five hundred dollars (\$500), one in each of the departments of Chemistry, Physics, and Biochemistry/Microbiology, is awarded annually to an outstanding student completing year three in a major or honours program. Preference will be given students who have indicated an interest in the business or scientific aspects of the brewing industry. Selection of each recipient will be made by the Senate Committee on Awards upon the recommendation of the department involved.

#### **Biology**

**THE CLIFORD J. BATE SCHOLARSHIP** — Six hundred dollars (\$600) awarded annually to a third year student in Botany on the basis of academic attainment. The award is to be made by the Senate Committee on Awards upon the recommendation of the Department of Biology.

\* **THE CHAPMAN MEMORIAL SCHOLARSHIP** — Two scholarships of \$700 each will be awarded annually, one to a student who has completed third year Biology, on the Ecology Program, and one to a student who has completed third year Geography, on the Resources and Physical Program. A book on ecology and conservation, selected by the appropriate department, will be part of the award. These scholarships are given in memory of John Chapman and his daughter Barbara who were well known conservationists. Selection will be made by the Senate Committee on Awards upon the recommendations of the appropriate departments.

\* **JOHN J. DOBROCKY SCHOLARSHIP** — A scholarship of \$1000 is awarded annually to a student entering fourth year who is specializing in any aspect of oceanography or related marine sciences and who has demonstrated outstanding potential for a professional career in the discipline. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Biology.

**B.C. HYDRO SCHOLARSHIPS** — B.C. Hydro is establishing five scholarships of \$500 each to encourage the development of knowledge and expertise in subjects related to environmental impact assessment work within the context of the British Columbia environment. The scholarships are awarded annually to outstanding students entering year 3 or 4 of the following programs: Biology (1 award), Geography (1 award) and Environmental Studies (3 awards). The Geography recipient must be specializing in Techniques and Methods and/or Resources and Physical courses; the Environmental Studies recipients must be specializing in the Natural Resource Management, Science or Conceptual options. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendations of the Departments and Program involved.

\* **THE SINCLAIR FARRIS AWARD** — An award of \$450 is made annually to an undergraduate or graduate student in Biology for interest and achievement of excellence in the field of microtechnique. The award was established to recognize Sinclair Farris who worked with the Canadian Forestry Service (Environment Canada) for 38 years, specializing in microtechnique. Selection will be made upon the recommendation of the Department of Biology by the Senate Committee on Awards in the case of an undergraduate student and by the Awards Committee of the Faculty of Graduate Studies in the case of a graduate student.

\* **FREEMAN F. KING SCHOLARSHIP** — Six hundred and fifty dollars (\$650) awarded to a student entering third or fourth year, preferably the latter, and preparing for a career in natural history, considered in a broad demonstrated interest in field studies, especially in terrestrial biology. The recipient will be selected by the Senate Committee on Awards from candidates recommended by Biology Department staff members.

**THE AMELIA LEITH MEMORIAL SCHOLARSHIP** — An award of \$600 is made annually to an outstanding student who is completing year 2 or 3 of a major or honours program in Biology and who has an interest in horticultural studies. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Biology.

**THE IAN AND JOYCE McTAGGART-COWAN SCHOLARSHIP** — An award of \$1500 is made annually to an outstanding student proceeding to year 3 or 4 of an Honours program in Biology. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Department of Biology.

\* **THE MELBURN-BRENTON SCHOLARSHIP** — An award of \$1350 is made annually to a student, with high standing, whose special interest is cryptogamic botany. Selection will be made by the Senate Committee on Awards (or the Graduate Studies Awards Committee, if appropriate) upon the recommendation of the Department of Biology.

\* **B.W. PEARSE SCIENCE SCHOLARSHIP** — Four scholarships of four hundred dollars (\$400) each will be awarded to the top year student enrolled in an honours course in Biology, Chemistry, Mathematics and Physics.

**SEAPAN INTERNATIONAL LTD. SCHOLARSHIP** — One hundred and fifty dollars (\$150) awarded annually to the student leading courses numbered 200 in any two of the following departments: Biology, Chemistry, Geography, Mathematics, Physics. The winner must continue academic work at an approved university.

\* **THE THETIS PARK NATURE SANCTUARY ASSOCIATION SCHOLARSHIP** — An award of \$600 is made annually to an undergraduate student, with high standing, whose main interest is plant taxonomy. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Biology.

**VICTORIA CENTRAL LIONS CLUB — DR. G.C. CARL AWARD** — Two hundred and fifty dollars (\$250) awarded annually to the top first year student in the Department of Biology who is continuing similar studies at the University of Victoria.

**THE VICTORIA MEN'S GARDEN CLUB SCHOLARSHIP** — Three hundred (\$300) awarded annually to a third year student in Botany on the basis of academic attainment. The award is to be made on the recommendation of the Department of Biology.

**VICTORIA NATURAL HISTORY SOCIETY SCHOLARSHIP** — Four hundred dollars (\$400) awarded to the most deserving student completing first or second year, specializing in Biology, and having demonstrated interest in natural history.

#### **Chemistry**

\* **THE CHARLES HUMPHREY MEMORIAL SCHOLARSHIP IN CHEMISTRY** — An award of \$2500 is made annually to an outstanding student proceeding to year 3 or 4 of an Honours or Major program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Chemistry.

**THE MOLSON COMPANIES SCHOLARSHIPS** — A scholarship of five hundred dollars (\$500), one in each of the departments of Chemistry, Physics, and Biochemistry/Microbiology, is awarded annually to an outstanding student completing year three in a major or honours program. Preference will be given to students who have indicated an interest in the business or scientific aspects of the brewing industry. Selection of each recipient will be made by the Senate Committee on Awards upon the recommendation of the department involved.

\* Administered by the University of Victoria Foundation.

\* **B.W. PEARSE SCIENCE SCHOLARSHIPS** — Four scholarships of four hundred (\$400) awarded to the top year student enrolled in an honours course in Biology, Chemistry, Mathematics and Physics.

\* **THE JOHN F. REEVES MEMORIAL FUND** — The award of \$725 will be offered annually to the student in the Chemistry Coop Program who, during his work term, is judged to have made the most outstanding contribution to his employer in the field of chemistry. The recipient of the award should clearly have demonstrated some distinction in his work term performance. Candidates must be nominated for the award by their employer and the nominations will be assessed by a committee composed of two representatives of employers participating in the Chemistry Coop Program chosen by the Chemistry Department and two members of the Chemistry Department. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the committee. The requirement that the award winner must return to the University of Victoria in the next regular session and must enroll in a full program does not apply to this award.

**THE RETECH AWARD** — Two awards of \$100 each will be offered in each 4 month work term period to the two students who have been judged to have the best all round performance in the Chemistry Coop work terms of the given period. One junior (work term 1 or 2) and one senior (work term 3 or higher) will be chosen. Assessment will be made by the Chemistry Coop Committee and will be based on workterm reports, oral presentations and performance on the job. Selection will be made by the Senate Committee on Awards upon the recommendation of the Chemistry Coop Committee. The requirement that the award winners must return to the University of Victoria in the next regular session and must enroll in a full program, does not apply to this award.

\* **THE STEPHEN A. RYCE MEMORIAL SCHOLARSHIP** — A scholarship of \$325 will be awarded annually to an outstanding student in third year Chemistry who plans to complete a degree in Chemistry at the University of Victoria. Selections of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Awards Committee of the Department of Chemistry. The award is in memory of Dr. Stephen A. Ryce who was a member of the Chemistry Department for many years.

**SEASPAN INTERNATIONAL LTD. SCHOLARSHIP** — One hundred and fifty dollars (\$150) awarded annually to the student leading courses numbered 200 in any two of the following departments: Biology, Chemistry, Geography, Mathematics, Physics. The winner must continue academic work at an approved university.

#### **Child Care**

**B.C. CHILD CARE SERVICES ASSOCIATION AWARD** — One year's free membership in the association is awarded annually to a graduating student who has demonstrated proficiency in practica and has made significant contributions to the Association's activities. Selection of the recipient will be made by the School of Child Care and the Association's Victoria Region Executive.

**THE CHUCK CURTIS MEMORIAL AWARD** — An award of \$2000 is given annually to a student proceeding to year three or four of the Child Care program who shows professional promise as indicated by excellent in Child Care practice (e.g. high achievement in practica coursework, notable contribution in volunteer/community involvement). Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Child and Youth Care in consultation with the Professional Advisory Committee.

\* **THE ROBERT S. EVANS MEMORIAL SCHOLARSHIPS** — Nine scholarships of seven hundred dollars (\$700) will be awarded annually to academically outstanding students who intend to continue their studies at the University of Victoria, as follows:

- (a) One scholarship to a student in each of the Programs: Child Care, Nursing, and Social Work, on the recommendation of the respective Directors;
  - (b) One scholarship to a student who has completed Year III in an Astronomy Program;
  - (c) Five scholarships for award within the student body at large.
- If no suitable candidates can be found in categories (a) or (b), additional awards can be made in category (c).

\* **THE WILLIAM AND GLADYS PARTRIDGE AWARD** — An award of \$125 is made annually to the graduating student in the School of Child Care who submits the best essay offering an original contribution to the theory or practice of child care. Essays must be submitted no later than April 30. If no essay reaches the required standard the award will be

withheld. Selection of the recipient will be made upon the recommendation of the Director of the School of Child Care.

**THE JEAN WHITE MEMORIAL SCHOLARSHIP** — A scholarship of \$400 is awarded annually to a student entering second year in the School of Child Care who is pursuing a career in a health related field and has demonstrated an exceptional commitment to the community through volunteer service. This award has been established by the Queen Alexandra Salarium for Crippled Children Society in memory of the late Mrs. Jean White, Coordinator of Volunteers, who devoted her life to children. Selection of the recipient will be made by the Senate Committee on Awards upon the joint recommendation of the School of Child Care and the Board of Trustees of the Queen Alexandra Crippled Children Society.

#### **Classics**

\* **THE GEORGE P. BLACK MEMORIAL SCHOLARSHIP** — A scholarship of \$800 will be awarded annually to an outstanding undergraduate student in Classics, in memory of George P. Black, who was for 22 years an exceptional teacher of Latin and Greek at Victoria College. The recipient will be selected by the Senate Committee on Awards, upon the recommendation of the Department of Classics.

**CLASSICAL ASSOCIATION OF VANCOUVER ISLAND BOOK PRIZES** — Three prizes (not exceeding \$25 each) will be awarded annually by the Classical Association of Vancouver Island for excellence in the study of Classics. Selection will be made by the Senate Committee on Awards on the recommendation of the Department of Classics.

#### **Computer Science**

**DIGITAL EQUIPMENT OF CANADA LIMITED AWARD OF MERIT** — An award of \$250 and a certificate of merit is made annually to a student who is entering fourth year, is registered in a Major or Honours Computer Science program (including a combined program) and has achieved the highest overall standing in the required third year Computer Science courses. In the case of a tie in the standing the Department will recommend a recipient. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Computer Science.

**HTS HI-TECH SYSTEMS LIMITED SCHOLARSHIP** — HTS Hi-Tech Systems Ltd. offers a scholarship of \$750 to a student entering second, third or fourth year in a Computer Science program, who has achieved high academic standing. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Computer Science.

**SOFTWARE RESEARCH CORPORATION SCHOLARSHIPS** — Two scholarships of \$500 each are awarded annually to students, one male and one female, in the Computer Science Coop Program who, during the work term, have made outstanding contributions to the field of computer science. The recipients will also have achieved high academic standing in their required courses. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Department of Computer Science.

\* **THE JOHN THIPTHORPE MEMORIAL AWARD** — An award of at least \$200 is made annually to a student entering third year in an undergraduate program of Computer Science. The award will be based on the student's academic achievement exhibited in the second year courses. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Computer Science.

#### **Creative Writing**

\* **THE ROSALIND HULET PETCH MEMORIAL PRIZE IN CREATIVE WRITING** — Three hundred dollars (\$300) to be awarded annually to an outstanding student in Creative Writing. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Creative Writing.

#### **Economics**

**THE ASSOCIATION OF PROFESSIONAL ECONOMISTS OF BRITISH COLUMBIA SCHOLARSHIP** — The Association provides a scholarship of \$500 to encourage students to pursue careers as professional economists. It is awarded to an outstanding student in Economics entering the final year of a Major or Honours program in Economics. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Economics.

\* Administered by the University of Victoria Foundation.

**THE EATON FOUNDATION SCHOLARSHIP IN MARKETING** — A scholarship of five hundred dollars (\$500), the gift of the Eaton Foundation, will be available annually to the third year student who, in the opinion of the Department of Economics, is most proficient in the study of consumer behaviour under competitive market conditions. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Economics, to a student with a first class average.

\* **THE GEORGE HAMILTON HARMAN MEMORIAL SCHOLARSHIPS** — Two scholarships of three hundred and twenty-five dollars (\$325) each, made available by Miss Emily A. Harman of Toronto in memory of her late brother, will be awarded for proficiency in money and banking or in Economics.

**THE INSTITUTE OF CHARTERED ACCOUNTANTS OF BRITISH COLUMBIA PRIZE** — An award of \$675 is made annually to the top student completing the accounting course, Commerce 251.

\* **THE MILLEN UNDERGRADUATE AWARD** — Two \$1,500 scholarships may be made annually to students entering Year III and Year IV in Creative Writing. Selection of the candidates will be based on high academic standing and an assessment by the Department of Creative Writing of:

- (a) an original lyric poem, beautiful in form and content, or
- (b) a prose original, fact or fiction, of not more than thirty-five hundred words, which is beautiful in form and content.

Submission of original writings must be made according to the format and entry dates prescribed by the Department of Creative Writing. Selection of the recipients will be made by the Senate Committee on Awards based upon the recommendation of the Department of Creative Writing.

**THE PALM DAIRIES SCHOLARSHIP** — A scholarship of \$500 is awarded annually to an outstanding student entering year four of an Honours program in Economics. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Economics.

**THE VANCOUVER STOCK EXCHANGE SCHOLARSHIP** — An award of \$1000 is made annually to an outstanding student proceeding to year 4 of an Honours or Major program in Economics. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Economics.

**YORKSHIRE TRUST COMPANY SCHOLARSHIP** — Two hundred dollars (\$200) awarded annually to the outstanding student in Commerce 251 who plans to continue University studies leading to a B.Com. degree.

## Education

\* **THE DENTON MEMORIAL BOOK PRIZE** — An annual book prize to a student in a professional year (elementary field) who has a first class standing in practice teaching and good general proficiency.

\* **THE H.O. AND ETTA B. ENGLISH MEMORIAL SCHOLARSHIP** — Eight hundred dollars (\$800) to be awarded annually for general proficiency and high standing in practice teaching to a student who is returning for further study in the Faculty of Education.

\* **THE HUGH FARQUHAR MEMORIAL SCHOLARSHIP** — An award of \$2500 is made annually to a student proceeding to year 2, 3 or 4 in a B.Ed. program. Selection will be based on the following criteria: 1. outstanding academic achievement 2. demonstrated contributions to a range of university and community activities. Application forms for this award can be obtained from the Dean's Office in the Faculty of Education and must be submitted to that office by April 1 of each year. Final selection will be made by the Senate Committee on Awards, upon recommendation of the Faculty. The selection process at the Faculty level will include an interview of selected candidates.

\* **THE FACULTY OF EDUCATION MEMORIAL SCHOLARSHIP** — A scholarship up to the amount of the recipient's tuition fees will be awarded annually to an outstanding student in the Faculty of Education on the basis of previous academic performance and potential is a teacher. In cases where equal scholastic ability has been demonstrated, financial need will be considered. Selection will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **THE WILLIAM A. AND FRANCES E. HARPER SCHOLARSHIP** — One hundred and seventy-five dollars (\$175) to be awarded annually to a deserving and promising student in the Faculty of Education.

\* **THE A. WILFRID JOHNS MEMORIAL SCHOLARSHIP** — Seven hundred dollars (\$700) will be awarded annually to a promising student who has demonstrated the ability to teach Art Education. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **THE GODFREY LAWRENCE STEVENS LEE PHYSICAL EDUCATION SCHOLARSHIP** — An award of \$400 is made annually to an outstanding School of Physical Education student proceeding to year 2, 3 or 4 of the B.Sc. program with a major in Human Performance. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **THE FRED L. MARTENS SCHOLARSHIP** — A scholarship of six hundred dollars (\$600) is awarded annually to the School of Physical Education student with the highest grade point average entering year 5 of the B.Ed. degree program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **ROBERT BURNS McMICKING CHAPTER IODE SCHOLARSHIP** — Two hundred and seventy-five dollars (\$275) to be presented annually to a student in the Faculty of Education who has shown outstanding ability in practice teaching, who has high academic standing the field of kindergarten or primary education and who will be continuing studies in this field.

\* **THE JOHN AND ALICE McCULLOCH MEMORIAL SCHOLARSHIP** — Three hundred and seventy-five dollars is awarded annually to a student in the Faculty of Education who has completed at least five or six units in Art Education with merit and will be continuing study at the University of Victoria in the Elementary Art Education teaching area. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Art Education section of the Department of Art and Music Education.

\* **THE NATIVE DAUGHTERS OF BRITISH COLUMBIA SCHOLARSHIP** — Three hundred dollars (\$300) is awarded annually to an outstanding British Columbia native Indian student completing year 2, 3 or 4 in the Faculty of Education. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

**THE NORA PIGGOTT SCHOLARSHIP** — An award of \$400 is made annually to an outstanding female student in the Faculty of Education. The award is to be based primarily on an assessment of the student's potential as a teacher as displayed in the practicum. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **SCHOOL OF PHYSICAL EDUCATION SCHOLARSHIPS** — Three scholarships of three hundred and fifty dollars (\$350) are awarded annually to academically outstanding students who intend to continue their studies in the School of Physical Education at the University of Victoria. The scholarships will be given to the students with the highest grade point average in each of the years 1, 2 and 3. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendations of the Faculty of Education.

\* **THE M. BEVERLEY VAOI LAW SCHOLARSHIP IN EDUCATION** — An award of at least \$400 will be presented annually to a student in the Faculty of Education who has excelled in academic and professional courses. The award will normally be made to a student entering fourth or fifth year who has a high academic grade point average as well as first class standing in courses involving teaching practica. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* **DON WRIGHT SCHOLARSHIP IN MUSIC EDUCATION (INSTRUMENTAL MUSIC)** — This scholarship was established by Mr. Don Wright with the aim of strengthening the teaching of instrumental music in the schools. The scholarship of \$650 is awarded annually to a full time student in the Bachelor of Music or Bachelor of Education (Music Education) degree program who has demonstrated a talent and achievement in instrumental music and teaching ability at either the elementary or secondary level. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

\* Administered by the University of Victoria Foundation

\* **DON WRIGHT SCHOLARSHIP IN MUSIC EDUCATION (VOCAL AND CHORAL MUSIC)** — This scholarship was established by Mr. Don Wright with the aim of strengthening the teaching of vocal and choral music in the schools. The scholarship of \$650 is awarded annually to a full time student in the Bachelor of Music or Bachelor of Education (Music Education) degree program who has demonstrated a special aptitude for vocal and choral music and a teaching ability at either the elementary or secondary level. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Education.

**THE ROSALIND W. YOUNG SCHOLARSHIP** — Six hundred dollars (\$600) to be awarded annually by the University Women's Club of Victoria to the woman achieving the highest standing in second year Education who is continuing University studies.

### Engineering

\* **THE VICTORIA BRANCH, ASSOCIATION OF PROFESSIONAL ENGINEERS OF B.C. SCHOLARSHIP** — An award of \$500 is made annually to an outstanding student entering year four of the Engineering program who graduated from a secondary school in School District 61, 62, 63 or 64. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

\* **THE BAYNES AWARD IN ENGINEERING** — An award of \$950 has been made available by G.E. Baynes, Consulting Engineer. The award will be made to an outstanding undergraduate student in Engineering (who is a Canadian citizen and) who has demonstrated strong qualities of leadership combined with active participation in sports. As part of the selection process the Faculty will consult with the Engineering Student's Association. The selection will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

\* **THE CUNLIFFE ENGINEERING SCHOLARSHIP** — An award of \$1 500 is made annually to an outstanding student entering year 4 of the Engineering program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

**FACULTY OF ENGINEERING; DEAN'S ENTRANCE SCHOLARSHIPS** — A number of scholarships of \$2000 each will be awarded annually to students with high academic standing who are entering the Faculty of Engineering at the University of Victoria directly from British Columbia secondary schools or regional colleges. The assessment of academic standing of the secondary school students will be based on secondary school course results while assessment of regional college students will be based on college course results. Recipients will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering. Normally the names of award winners will be announced by May 31.

\* **THE CHARLES HUMPHREY MEMORIAL SCHOLARSHIP IN ENGINEERING** — An award of \$2500 is made annually to an outstanding student proceeding to year 3 or 4 of the Engineering program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

**THE MICROTEL PACIFIC RESEARCH LTD. SCHOLARSHIP** — An award of \$1000 is made annually to an outstanding student proceeding to year 3 or 4 of the Electrical Engineering program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

**THE JOHANNES G. NORDAL SCHOLARSHIP IN ENGINEERING** — An award of \$2,500 will be made annually to an outstanding undergraduate student in the third or fourth year of the program. The selection will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Engineering.

### English

\* **THE RALPH BARBOUR BURRY MEMORIAL SCHOLARSHIPS** — Two scholarships of \$1,125 each are awarded annually for excellence in English studies to students entering the third or fourth year in an English Major or Honours program. In cases of comparable academic merit, contributions to university and/or community activities and financial need will be considered. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of English.

\* **THE EDGAR FERRAR CORBET SCHOLARSHIP** — Three awards of two hundred and fifty dollars (\$250) to be awarded annually for profi-

ciency in English to a second year student who is a graduate of a British Columbia high school and who will be majoring or honouring in English in the third year.

\* **THE IRENE LEE SCHOLARSHIP IN ENGLISH** — An award of \$400 is made annually to an outstanding student proceeding to year 3 or 4 of an Honours or Major program in the Department of English. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of English.

\* **MARTLET CHAPTER IODE CUTHBERT HOLMES ENGLISH HONOURS ESSAY SCHOLARSHIP** — A scholarship to the value of three hundred dollars (\$300) will be awarded annually to the student who has written the best English Honours Graduating Essay. The winner will be selected by the Senate Committee on Awards upon the recommendation of the Department.

\* **CHAPTER N, P.E.O. MEMORIAL PRIZE** — One hundred and fifty dollars (\$150) awarded annually by Chapter N, P.E.O. Sisterhood, to a woman student in first year for excellence in English.

\* **THE JOHN PETER MEMORIAL SCHOLARSHIP** — A scholarship of \$575 is awarded annually for excellence in English studies to a student in English 345 who is entering the third year of an Honours or Major program in English. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of English.

\* **ROYAL INSTITUTION AND FRANK EATON MEMORIAL SCHOLARSHIP** — Two hundred dollars (\$200) awarded to the student taking the highest standing in English of the second year.

**THE MADAME SANDERSON MEMORIAL SCHOLARSHIP** — Three hundred and fifty dollars (\$350) offered annually to a promising student for excellence in English and French of the second year.

\* **THE KATE POTTINGER THOMPSON MEMORIAL SCHOLARSHIP** — An award of two hundred and twenty-five dollars (\$225) is given annually to the Major or Honours student in English with the best overall performance in the third year. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of English.

### Environmental Studies

**B.C. HYDRO SCHOLARSHIPS** — B.C. Hydro is establishing five scholarships of \$500 each to encourage the development of knowledge and expertise in subjects related to environmental impact assessment work within the context of the British Columbia environment. The scholarships are awarded annually to outstanding students entering year 3 or 4 of the following programs: Biology (1 award), Geography (1 award) and Environmental Studies (3 awards). The Geography recipient must be specializing in Techniques and Methods and/or Resources and Physical courses; the Environmental Studies recipients must be specializing in the natural Resource Management, Science or Conceptual options. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Departments and Program involved.

### French

**ALLIANCE FRANCAISE SCHOLARSHIPS** — Two scholarships of fifty dollars (\$50) each awarded: (1) to the student in the second year who has made the most progress in French and who intends to continue university work in this subject; (2) to the best student entering the fourth year of a Major program in French.

\* **L'ALLIANCE FRANCAISE DE VICTORIA BOOK PRIZE IN MEMORY OF DR. W.D. WITHERSPOON** — An annual book prize will be given to a student graduating with a Major in French. The award is made possible through donations from members of the Alliance Francaise de Victoria. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of French Language and Literature.

\* **THE ADELIN JULIENNE DELOUME MEMORIAL SCHOLARSHIPS** — Three hundred dollars (\$300) each to be awarded to the first year female student and the first year male student attaining the highest grades in French in first year university and intending to continue studies in French at the University of Victoria. Additional awards will be presented to students in the Honours and Major Programs, up to a total of \$4,000.

\* Administered by the University of Victoria Foundation

**THE FRENCH GOVERNMENT BOOK PRIZES** — These prizes, the gift of the French government through the consulate in Vancouver, are awarded annually for excellence in French. Selection to be made by the French Department.

**THE MADAME SANDERSON MEMORIAL SCHOLARSHIP** — Three hundred and fifty dollars (\$350) offered annually to a promising student for excellence in English and French of the second year.

**THE PRIZES OF THE AMBASSADOR OF SWITZERLAND TO CANADA** — These book prizes will be awarded to an outstanding student of French language and literature, to a student with high standing in German, and to an outstanding student in Italian.

\* Administered by the University of Victoria Foundation.

### Geography

**B.C. HYDRO SCHOLARSHIPS** — B.C. Hydro is establishing five scholarships of \$500 each to encourage the development of knowledge and expertise in subjects related to environmental impact assessment work within the context of the British Columbia environment. The scholarships are awarded annually to outstanding students entering year 3 or 4 of the following programs: Biology (1 award), Geography (1 award) and Environmental Studies (3 awards). The Geography recipient must be specializing in Techniques and Methods and/or Resources and Physical courses; the Environmental Studies recipients must be specializing in the Natural Resource Management, Science or Conceptual options. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendations of the Departments and Program involved.

\* **THE DR. NORMAN BETHUNE MEMORIAL AWARD** — An annual award of one hundred and twenty-five dollars (\$125) will be made available in memory of Dr. Norman Bethune. The award is to be made to a third or fourth year student in the Department of Geography on the basis of high standing in Geography 364. Selection will be made by the Senate Committee on Awards on the recommendation of the Department of Geography.

\* **THE CHAPMAN MEMORIAL SCHOLARSHIP** — Two scholarships of \$700 each will be awarded annually, one to a student who has completed third year Biology, on the Ecology Program, and one to a student who has completed third year Geography, on the Resources and Physical Program. A book on ecology and conservation, selected by the appropriate department, will be part of the award. These scholarships are given in memory of John Chapman and his daughter Barbara who were well known conservationists. Selection will be made by the Senate Committee on Awards upon the recommendations of the appropriate departments.

\* **THE CHINESE CONSOLIDATED BENEVOLENT ASSOCIATION OF VICTORIA AWARDS** — These awards are granted for the purpose of stimulating the study of the Geography of Chinatowns.

a) **Course Award** — An annual award of one hundred dollars (\$100) will be made to a third or fourth year student in the Department of Geography on the basis of high standing in Geography 442 (Geography of Chinatowns and Chinese Migration). Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Geography.

b) **Travel Award** — This award will provide funds to assist Geography students, who are or have been enrolled in Geography 442, to undertake a field study of Chinatowns outside the City of Victoria. The selection of students will be made by the Senate Committee on Awards upon the recommendation of the Department of Geography. The general University requirement that award recipients must return to the University of Victoria in the next regular session and enroll in a full program does not apply to this travel award.

\* **THE CHINESE FREEMASONS OF VICTORIA AWARD** — An annual award of one hundred and twenty-five dollars (\$125) is granted for the purpose of stimulating the study of Political Geography, one of the themes in the study of cultural geography. The award is to be made to an undergraduate student in the Department of Geography on the basis of high standing in Geography 205B. Selection will be made by the Senate Committee on Awards on the recommendation of the Department of Geography.

\* **THE DART COON CLUB AND CHINESE FREEMASONS OF VICTORIA CHINA STUDIES TRAVEL AWARD** — This award is funded by the Dart Coon Club of Victoria and the Chinese Freemasons of Victoria for the purpose of stimulating the study of geography of China. This award will provide funds for the organization of a study tour of China and to assist Geography students who are or have been enrolled in Geog-

raphy 364 and/or 365 to undertake this tour. The frequency of the study tour will be determined by the Department of Geography. The selection of students will be made by the Senate Committee on Awards on the recommendation of the Department of Geography. The general university requirement that award recipients must return to the University of Victoria in the next regular session and enroll in a full program, does not apply to this travel award.

\* **THE DART COON CLUB OF VICTORIA AWARD** — An annual award of one hundred and twenty five dollars (\$125) is granted for the purpose of stimulating the study of Cultural Geography and Multiculturalism in Canada. The award is to be made to an undergraduate student in the Department of Geography on the basis of high standing in Geography 205A. Selection will be made by the Senate Committee on Awards on the recommendation of the Department of Geography.

\* **THE GEOLOGICAL ASSOCIATION OF CANADA SCHOLARSHIP** — An award of \$450 is made annually to an outstanding student who is pursuing a full time course of study at any Canadian university directed towards a career in solid earth science. Selection of the recipient will be made by the Senate Committee on Awards upon a joint recommendation from the Departments of Geography and Physics.

\* **THE CHARLES HOWATSON SCHOLARSHIP** — An award of \$750 is made annually to an outstanding third year student enrolled in a geography major or honours program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Geography.

\* **THE MAO TSE-TUNG MEMORIAL AWARDS** — These awards are funded by a bequest from the estate of Mr. Bill Scott.

a) **Course Award** — An annual award of one hundred and twenty-five dollars (\$125) will be made available in memory of Mao Tse-Tung. The award is to be made to a third or fourth year student in the Department of Geography on the basis of high standing in Geography 365. Selection will be made by the Senate Committee on Awards on the recommendation of the Department of Geography.

b) **Travel Award** — This award will provide funds to assist Geography students, who are or have been enrolled in Geography 364 and 365, to undertake a study tour of China. The frequency of the study tour will be determined by the Department of Geography. The selection of students will be made by the Senate Committee on Awards on the recommendation of the Department of Geography. The general University requirement that award recipients must return to the University of Victoria in the next regular session and enroll in a full program does not apply to this travel award.

**SEASPAN INTERNATIONAL LTD. SCHOLARSHIP** — One hundred and fifty dollars (\$150) awarded annually to the student leading courses numbered 200 in any two of the following departments: Biology, Chemistry, Geography, Mathematics, Physics. The winner must continue his academic work at an approved university.

**THE VICTORIA LAPIDARY AND MINERAL SOCIETY SCHOLARSHIP** — An annual scholarship of \$300 will be awarded to a student with outstanding scholastic ability who has completed the introductory course in Geology and who intends to continue studies in this field. The selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Geography.

\* **THE AJAIB SINGH SANGHA MEMORIAL SCHOLARSHIP** — An annual scholarship of \$400 will be awarded to an outstanding student in Geography who has shown special proficiency in the course, The Geography of Southeast Asia. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Department of Geography. The requirement that the award winner must return to the University of Victoria in the next regular session and must enroll in a full program does not apply to this award.

### German

\* **THE GERMAN CLUB SCHOLASTIC AWARD** — An award of \$50, established by the University of Victoria German Club (1985-86), is made annually to a promising first, second or third year student intending to continue German studies at the University of Victoria. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Germanic Studies.

\* Administered by the University of Victoria Foundation

**GOVERNMENT OF THE FEDERAL REPUBLIC OF GERMANY BOOK PRIZES** — These book prizes, the gift of the Federal Republic of Germany through the Consulate General in Vancouver, are available for students in each undergraduate year showing proficiency in German Studies.

\* **THE DR. NORA HAIMBERGER SCHOLARSHIPS** — Two scholarships are awarded annually. \$500 is given to an outstanding student entering the fourth year of a Major or Honours program in Germanic Studies. The other (\$300) is given to a promising student enrolled in Germanic Studies 100 or 149. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Department of Germanic Studies.

\* **THE J. BEATTIE MacLEAN SCHOLARSHIP** — Four hundred and twenty-five dollars (\$425) awarded annually to a student of outstanding merit and promise in second or third year who intends to continue studies in German at the University of Victoria. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Germanic Studies.

**THE PRIZES OF THE AMBASSADOR OF SWITZERLAND TO CANADA** — These book prizes will be awarded to an outstanding student of French language and literature, to a student with high standing in German, and to an outstanding student in Italian.

\* **THE CARL WEISSELBERGER MEMORIAL BOOK PRIZE** — To be awarded to a promising senior student in German on the recommendation of the Department of Germanic Studies.

**AUSTRIAN GOVERNMENT BOOK PRIZES** — The Austrian Consulate awards book prizes to students in each undergraduate year showing proficiency in German studies.

\* **THE UNIVERSITY OF VICTORIA GERMAN CLUB JUBILEE AWARD** — Two awards consisting of a German/English Dictionary will be awarded annually to promising first or second year students intending to continue German studies at the University of Victoria. The award was established by the University of Victoria German Club (1977-78), and is awarded by the Senate Committee on Awards after consultation with the Department of Germanic Studies.

#### Health Information Science

**THE DATA GENERAL (CANADA) INC. SCHOLARSHIP** — A scholarship of \$1,000 will be awarded annually to a student in the Health Information Science program, who has obtained a high academic standing in the student's second year and who is continuing in the program. Leadership, character and extra curricular activities will also be considered in the selection of the recipient. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Health Information Science.

\* **THE MRS. ANNIE GRESKIW SCHOLARSHIP IN HEALTH INFORMATION SCIENCE** — An award of \$2000 is made annually to an outstanding student preceding to year 3 or 4 of the Health Information Science program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Director of the School of Health Information Science.

#### Hispanic and Italian Studies

\* **PABLO CABANAS MEMORIAL SCHOLARSHIP** — Scholarships totalling \$1700 are awarded annually to outstanding students in second or third year who intend to continue studies in Spanish at the University of Victoria. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Hispanic and Italian Studies.

**THE GOVERNMENT OF ITALY BOOK PRIZES** — These prizes, the gift of the Italian Government through the Consulate in Vancouver, are awarded annually for excellence in Italian. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Hispanic and Italian Studies.

**THE SPANISH GOVERNMENT BOOK PRIZE** — Awarded to the best student in a senior Spanish course. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Hispanic and Italian Studies.

**THE PRIZES OF THE AMBASSADOR OF SWITZERLAND TO CANADA** — These book prizes will be awarded to an outstanding student of French language and literature, to a student with high standing in German, and to an outstanding student in Italian.

\* **THE GAYLENE DAWN WALKER MEMORIAL SCHOLARSHIP** — A scholarship of \$200 is awarded annually to an outstanding student proceeding to the third or fourth year of a Major or Honours program in

Spanish at the University of Victoria. In awarding the scholarship special consideration will be given to students showing special interest in Spanish art, art history, music or literature. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Hispanic and Italian Studies.

#### History

\* **THE PRINCE AND PRINCESS NICHOLAS ABKHAZI BOOK PRIZE IN RUSSIAN HISTORY** — A book prize to the value of \$200 is awarded annually to the student who writes the best essay dealing with some aspect of Russian History related to the reign of Tsar Alexander II. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

\* **THE KATHLEEN AGNEW MEMORIAL SCHOLARSHIPS** — Two awards of three hundred and twenty-five dollars (\$325) granted for the purpose of stimulating the study of the History of Canada

\* **THE TATTON ANFIELD PRIZE IN AMERICAN HISTORY** — An annual book prize is awarded to an outstanding student enrolled in a senior level undergraduate course in either 20th century American history or American diplomatic history. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

\* **THE HANS AND IMOGEN BACH BOOK PRIZE IN MILITARY HISTORY** — A prize of \$50 is presented annually to an undergraduate student pursuing a program in History who achieves the highest grade in a third or fourth year course in Military History or Defence Studies. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

\* **THE ALEXANDER MacLEOD BAIRD MEMORIAL PRIZE IN SCOTTISH HISTORY** — A prize of \$250 is awarded annually to the student in the Department of History who writes the best essay on a topic in Scottish History. The award has been established by Mrs. A. MacLeod Baird in memory of her husband who was very interested in the role played by the Scots in Canada's history. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

\* **B.C. HISTORICAL ASSOCIATION SCHOLARSHIP** — Two hundred dollars (\$200) awarded to the leading undergraduate student in a course on B.C. history.

**CANADIAN INSTITUTE OF INTERNATIONAL AFFAIRS (VICTORIA BRANCH) BOOK PRIZE** — An annual prize of one hundred dollars (\$100) offered by the Victoria Branch, Canadian Institute of International Affairs in alternate years to: (1) the leading student in the History Department at the University of Victoria in a senior course dealing with Canada's foreign policy; (2) and the leading student in Political Science 240.

\* **THE MAUREEN DOBBIN SCHOLARSHIP** — An award of \$475 is made annually to the student in a major or honours program in History who best combines academic excellence with contributions to the University and/or the community. Nomination forms for this scholarship are available from the Department of History and must be submitted by April 15. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

\* **THE WILLARD E. IRELAND SCHOLARSHIP IN HISTORY** — A scholarship of approximately \$1,000 will be awarded annually to an outstanding student who has completed third year and is in a Major or Honours program in History. Preference will be given to a student specializing in Canadian History. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

**LEON J. LADNER B.C. HISTORY SCHOLARSHIPS** — Two scholarships, fifty dollars (\$50) to the best undergraduate student studying the History of British Columbia, and one hundred dollars (\$100) for the best graduating essay on the History of British Columbia.

\* **LADNER BOOK PRIZE FOR THE STUDY OF THE HISTORY OF BRITISH COLUMBIA** — An annual book prize will be given to an outstanding student of the History of British Columbia. The winner will be selected by the Senate Committee on Awards upon the recommendation of the Department of History.

\* **THE ALFRED LOFT BOOK PRIZE IN CANADIAN HISTORY** — A book prize to be awarded each year to an outstanding student in Canadian History. The prize is given in recognition of Professor Loft's contribution as a former teacher in the Department of History. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

\* Administered by the University of Victoria Foundation

\* **THE ALLAN AND ELIZABETH McKINNON SCHOLARSHIP** — An annual scholarship of \$1150 will be awarded to a senior student of high academic standing engaged in a Major or Honours program in Canadian history who would find it difficult to resume studies without financial aid. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

\* **THE MAJOR-GENERAL G.R. PEARKES, VC, SCHOLARSHIP** — An annual scholarship of \$225 is awarded to a student in the Department of History with the highest standing in three units of third or fourth year courses dealing with military history or defence studies. Courses eligible for consideration in any year will be identified in the History Department Handbook. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

\* **THE SYDNEY G. PETTIT BOOK PRIZE IN EUROPEAN HISTORY** — A book prize to be awarded each year to an outstanding student in European history. The prize is given in recognition of Professor Pettit's teaching and administrative contributions to the Department of History. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

**ROYAL UNITED SERVICES INSTITUTE OF VANCOUVER ISLAND BOOK PRIZES IN MILITARY HISTORY** — Book prizes to the total value of \$50 will be awarded annually to the two students with the highest academic standing in each of the Canadian and European Military History courses. The two winners and the prizes will be selected by the Senate Committee on Awards upon the recommendation of the Professor teaching the two undergraduate military history courses involved.

\* **THE NORA LUGRIN SHAW AND WENDELL BURRILL SHAW MEMORIAL SCHOLARSHIP** — Two hundred and seventy-five dollars (\$275) to be awarded annually to the student of History who writes the best essay dealing with the Magna Carta, The Petition of Rights and The Bill of Rights as the Fountainhead of Constitutional Liberties. The award is to be made by the Senate Committee on Awards upon the recommendation of the Department of History.

**UNITED EMPIRE LOYALISTS ASSOCIATION OF CANADA, (VICTORIA BRANCH), BOOK PRIZE IN CANADIAN HISTORY** — An annual book prize to be given to an outstanding student of Canadian History in a senior level course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of History.

**VICTORIA MUNICIPAL CHAPTER, IODE SCHOLARSHIP** — Three hundred and twenty-five dollars (\$325) awarded to an outstanding student in Canadian History in any year.

#### History in Art

\* **THE FLORA HAMILTON BURNS SCHOLARSHIP** — An annual award of five hundred dollars (\$500), donated by Flora Hamilton Burns in memory of Emily Carr, is made to an outstanding student entering fourth year of the B.A. Program in History in Art with an announced intention of proceeding to further study in this discipline. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of History in Art.

\* **MARTLET CHAPTER, IODE PRIZE FOR SCHOLARSHIP IN HISTORY IN ART** — An annual award of three hundred and dollars (\$300) will be presented for excellence in History in Art. The winner will be selected by the Senate Committee on Awards upon the recommendation of the Department of History in Art.

#### Law

**THE ADVOCATE'S PRIZE IN LEGAL WRITING** — The Advocate, which is the journal of the legal profession in British Columbia, awards an annual prize of \$1,000 to a student in the Faculty of Law who writes and submits a paper which, in the opinion of the Faculty, of a Committee of the Faculty designated for this purpose, best exemplifies the presentation of a legal subject in a literate and persuasive manner. The selection will be made from among papers nominated by members of the Faculty.

**THE ALEXANDER, HOLBURN, BEAUDIN AND LANG SCHOLARSHIP** — A scholarship of \$1000 is awarded annually to a student completing the second year of the LL.B program who has achieved high academic standing and who has demonstrated the qualities required for the practice of law. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE BAKER & MCKENZIE INTERNATIONAL SUMMER SERVICE SCHOLARSHIP** — This scholarship is awarded annually to a student completing the second or third year of the Bachelor of Laws program, who has achieved high academic standing and who has demonstrated an interest in public service and international affairs. Postings may include

one or more of the donor's offices, particularly those in Southeast Asia, namely Hong Kong, Singapore, Jakarta and Bangkok. More than one student may be chosen. Apart from a salary for the period of summer employment, the details of any other financial support will be determined in individual cases. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE BAKER & MCKENZIE PRIZE IN LEGAL ISSUES IN SOUTH-EAST ASIA LAW (LAW 343-1)** — This prize of \$500, or such higher value as the donor may determine, is made available by the Toronto office of the international law firm of Baker & McKenzie, and is awarded each year to the leading student in the Legal Issues in Southeast Asia Law course, or its successor. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Dean of Law. The purpose of the prize is to recognize academic and scholarly excellence in the recipient's pursuit of legal studies, with particular reference to the Asia-Pacific region.

**THE BARRIGAR & OYEN PRIZE IN INTELLECTUAL PROPERTY** — A prize of \$300, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Intellectual Property course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE BOUGHTON AND COMPANY SUMMER SCHOLARSHIP** — A scholarship is awarded annually to a student completing second year law who has shown academic excellence and who has demonstrated the qualities which are required for the practice of law. The recipient of the scholarship will be employed by Boughton and Company during the summer between second and third year of law and Boughton and Company will pay the tuition fees of the student for the third year of the student's Bachelor of Laws program. The selection of the student will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE BOURNE LYALL SCHOLARSHIP** — A \$750 scholarship donated by the Bourne Lyall legal firm is offered annually to a student in the Faculty of Law. The award will be made to an outstanding student in first year law. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE BROWN, ACHESON, HENDERSON, YATES, KAY & SHAW PRIZE IN FAMILY LAW** — A prize of \$250, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Family Law course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE BROWN, ACHESON, HENDERSON, YATES, KAY & SHAW PRIZE IN TORTS** — A prize of \$250, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the first year Torts course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE BULL, HOUSSER & TUPPER SUMMER EMPLOYMENT SCHOLARSHIP** — A summer employment scholarship will be awarded annually to a student completing second year law who has achieved a high academic standing and demonstrated in the student's academic and extracurricular activities the qualities required for the practice of law. The recipient of this scholarship will be employed by Bull, Houser & Tupper during the summer between second and third year law and the donor firm will pay the tuition fees for the third year of the student's Bachelor of Laws program at the University of Victoria. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE ANNIE CADBY MEMORIAL SCHOLARSHIP** — A scholarship, established by Louis F. Lindholm, is awarded annually to the student who attains the highest standing in the introductory course on Constitutional Law offered by the Faculty of Law. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law. The value of this award will be approximately \$400.

**THE CAMPNEY, MURPHY PRIZE IN COLLECTIVE AGREEMENTS AND ARBITRATION** — A scholarship of \$375 is awarded annually to the student who obtains the highest grade in the course on Collective Agreements and Arbitration offered by the Faculty of Law. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* Administered by the University of Victoria Foundation.

**THE CAMPNEY, MURPHY PRIZE IN DEBTOR-CREDITOR RELATIONS** — A scholarship of \$375 is awarded annually to the student who obtains the highest grade in the course on Debtor-Creditor Relations offered by the Faculty of Law. The recipient will be selected by the Senate Committee on Awards upon recommendation of the Faculty of Law.

**CANADA LAW BOOK COMPANY BOOK PRIZES** — A book prize of \$150 is awarded annually to a student in each year of the LL.B. program for academic excellence in a course designated annually by the Faculty. Normally, the prize will be awarded to a student who achieves the highest grade in a course which does not have a prize associated with the course. The recipients of the prizes will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE CLARK, WILSON TUITION SCHOLARSHIP** — Awarded annually to a student completing the second year of the Bachelor of Laws program who has achieved high academic standing and professional accomplishment in one or more legal skills courses which may include Advocacy, Legal Mooting, Legal Skills or Community Law (Law Centre). The Scholarship is equal to the tuition fees for the recipient's third year of full-time studies in the Faculty of Law. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **CREASE AND COMPANY SCHOLARSHIP IN LAW** — A scholarship to the value of full tuition is awarded to the student who stands highest in the second year of the LL.B. Program. The scholarship was established by the Victoria Law Firm of Crease and Company in honour of D.M. Gordon, Q.C.

**THE DAVIS & COMPANY PRIZE IN ADMINISTRATIVE LAW** — A prize of \$500, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Administrative Law course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE DAVIS & COMPANY PRIZE IN PUBLIC LAW TERM** — A prize of \$500, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Public Law Term. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE DAVIS AND COMPANY SCHOLARSHIP** — A scholarship of \$1,000 is awarded annually to a student who has completed the first year program in the Faculty of Law with high academic standing. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE DAVIS AND COMPANY SUMMER EMPLOYMENT SCHOLARSHIP** — Awarded annually to a student completing second year of the Bachelor of Laws program who has achieved high academic standing and who has demonstrated proficiency in the legal skills and scholarship required for the practice of law. The recipient of the Scholarship will be employed by Davis and Company during the summer months between second and third year law and Davis and Company will pay the tuition fees of the student for the third year of the student's Bachelor of Laws program at the University of Victoria. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE JIM ELLIS INTERNATIONAL LAW MOOTING AWARD** — The award shall be made to the students in the Faculty of Law who have demonstrated excellence in preparing and arguing International Law Moots. The award is made to the students who represent the Faculty of Law in an International Law Moot Court Competition. Funds associated with this award will be used to defray the expenses connected with the competition including expenses incurred by the students attending the competition. The names of the recipients will be engraved on a plaque that will be located in the Begbie Building to commemorate the award. Selection of the recipients of this award will be made by the Faculty of Law.

\* **THE PROFESSOR JIM ELLIS MEMORIAL PRIZE IN ADVANCED TAXATION** — A prize of \$300, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Advanced Taxation course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE PROFESSOR JIM ELLIS MEMORIAL PRIZE IN INTERNATIONAL BUSINESS AND TRADE LAW** — A prize of \$300, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the International Business and Trade Law course. Selection of the recipient will be made by the

Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE PROFESSOR JIM ELLIS MEMORIAL PRIZE IN INTERNATIONAL LAW** — A prize of \$300, or such higher value as the donor may determine, will be awarded annually to a student achieving the highest standing in the course in International Law. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE FREEMAN & COMPANY SUMMER SERVICE SCHOLARSHIP** — A summer service scholarship will be awarded annually to a student completing the second year law program, who has achieved a high academic standing and demonstrated in academic and extracurricular activities the qualities required for the practice of law. The recipient of this scholarship will be employed by Freeman & Company during the summer between second and third year law and the donor firm will pay the tuition fees and a book allowance for the third year of the student's Bachelor of Laws program at the University of Victoria. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE GUILD, YULE, LANE, SULLIVAN, MACKENZIE AND HOLMES SERVICE SCHOLARSHIP** — This Scholarship is awarded annually to a student completing the second year of the Bachelor of Laws program who has achieved high academic standing and who has demonstrated the qualities required for the practice of law. The recipient of the Scholarship will be employed by Guild Yule during the summer between second and third year law and Guild Yule will pay the tuition fees for the recipient's full time studies in the third year of the Bachelor of Laws program at the University of Victoria. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE HARPER, GREY, EASTON & COMPANY SCHOLARSHIP** — A scholarship of \$2000, or such higher value as the donor may determine, will be awarded annually to a student achieving high standing and who is proceeding to the next year of study. The Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE HARPER, GREY, EASTON & COMPANY PRIZE IN INSURANCE LAW** — A prize of \$500, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Insurance Law course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE ALLAN HIGENBOTTAM PRIZE** — The prize is awarded annually to the student in the Faculty of Law who receives the highest standing in the Law, Legislation and Policy course. The endowment for this prize was provided by the Province of British Columbia in memory of the late G. Allan Higenbottam, former Legislative Counsel of British Columbia. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law. The award will have a value of approximately \$225.

\* **THE G. ALLAN HIGENBOTTAM PRIZE IN LEGAL AND LEGISLATIVE DRAFTING** — The prize is awarded annually to the student in the Faculty of Law who, in the opinion of the Faculty, has demonstrated excellence in legal and legislative drafting in an upper year course. Selection will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law. The Prize has been established to commemorate the memory of the late G. Allan Higenbottam, former Legislative Counsel of the Province of British Columbia. The endowment for the Prize has been provided by the family of the late G. Allan Higenbottam.

\* **THE BETTY AND GILBERT KENNEDY SCHOLARSHIP IN LAW** — An award of \$1500 is made annually to an outstanding student beginning year 2 or 3 of the Law program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE LADNER DOWNS PRIZE IN CONTRACTS** — A prize of \$500, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Contracts course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE LADNER DOWNS PRIZE IN REMEDIES** — A prize of \$500, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Remedies course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* Administered by the University of Victoria Foundation

**THE LADNER DOWNS PRIZE IN THE SOLICITORS' PRACTICE TERM** — A prize of \$1,000, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Solicitors' Practice Term. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE LADNER DOWNS PRIZE IN APPELLATE ADVOCACY** — The prize is awarded annually to students who, in the opinion of the Faculty, have displayed greatest merit as appellate mooters. Normally, the prize is awarded to the team of students selected to represent the Faculty in moot court competition. Each year, Ladner Downs will contribute an amount of \$500 to be applied towards the transportation and accommodation expenses of the team at the moot court competition. Selection of the recipients will be made by the Faculty of Law.

**THE LADNER DOWNS SCHOLARSHIP** — A scholarship of \$750, or such higher value as the donor may determine, will be awarded annually to a student in the first or second year of the Faculty of Law. The award will be made to a student who, in the opinion of the Faculty, has shown excellence in legal studies. Selection will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE LADNER DOWNS SUMMER EMPLOYMENT SCHOLARSHIP** — The Ladner Downs Summer Employment Scholarship is awarded annually to a student completing second year of the Bachelor of Laws program who has achieved high academic standing and who has demonstrated proficiency in the legal skills required for the practice of law. The recipient of the scholarship will be employed by Ladner Downs during the summer between second and third year law. Ladner Downs will provide \$200 towards the cost of text books and pay the tuition fees of the student for the third year of the student's Bachelor of Laws Program at the University of Victoria. The selection of the student shall be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE LAW FOUNDATION OF B.C. ENTRANCE SCHOLARSHIPS** — The Law Foundation of British Columbia provides funds annually for the establishment of a number of Entrance Scholarships of \$5000 to students entering the first year of the Bachelor of Laws program who have outstanding academic records and who have such other qualities, such as service to the community, which indicate they will make significant contributions to the legal profession and the community at large and who are either Canadian citizens or permanent residents of Canada. If the recipient of the Scholarship achieves a high academic standing in the first year law program as determined by the Faculty, the Scholarship will be renewed in a lesser amount but, in any case, not less than \$2500 for the second year of LL. B. studies at the University of Victoria and, under the same conditions for the third year LL.B. studies. Second and third year recipients are eligible for other course prizes and performance awards to a maximum of \$6000 including the Law Foundation Scholarship. The Entrance Scholarships are awarded upon the recommendation of a committee consisting of the Dean of Law or his delegate, two members of the Faculty of Law named by the Dean and two representatives of the Law Foundation of British Columbia.

**THE LAWRENCE AND SHAW SCHOLARSHIP** — A scholarship of \$1,000 is awarded annually in February to a student in the second year of the LL.B. program of the Faculty of Law, who has demonstrated superior academic standing in the first year and the fall term of the second year, and who has demonstrated characteristics which indicate that the recipient will likely distinguish himself or herself in the practice of law. Publications, moot court participation, participation in Faculty committees and student government and other extracurricular activities may also be considered. The selection of the recipient from among applicants who apply will be made by a committee consisting of the Dean of Law, or the Dean's nominees, and a representative of the law firm of Lawrence and Shaw.

**THE LAWSON, LUNDELL, LAWSON AND McINTOSH SCHOLARSHIP** — A scholarship is awarded annually to a student in the second year of the Bachelor of Laws program who has achieved high academic standing and who has demonstrated the qualities which are required for the practice of law. The recipient of the scholarship will be employed by the law firm of Lawson, Lundell, Lawson and McIntosh during the summer between the student's second and third year and the firm will pay the tuition fees of the scholarship recipient for the third year law program at the University of Victoria. The selection of the scholarship recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE D.J. LAWSON PRIZE IN CORPORATE LAW** — The D.J. Lawson Prize in the amount of \$200 is awarded annually to the law student who achieves the highest grade in the Corporate Law course. This prize has

been established by the partners of Crease and Company to recognize the contributions of D.J. Lawson, Q.C. to the profession and to the practice of corporate law. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE LARS ALFRED LINDHOLM MEMORIAL SCHOLARSHIP** — A scholarship, established by Louis F. Lindholm, is awarded annually to the student who attains the highest standing in the Labour Law course offered by the Faculty of Law. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law. The value of this award will be approximately \$400.

\* **THE HONOURABLE HUGH ALAN MACLEAN MEMORIAL FUND** — The Honourable Hugh Alan Maclean Memorial Fund has been established by the Maclean family to recognize the contributions to the development of the law in the province of British Columbia and Canada by the late Hugh Alan Maclean and his father, the late Hugh Archibald Maclean, K.C. The annual income from the Fund is used to support research into British Columbia legal history, to sponsor an annual lecture series on criminal law and procedure, and to provide up to three scholarships or prizes annually to students in the Faculty of Law who have demonstrated high academic achievement in research and writing on the subjects of legal history or criminal law and procedure.

**THE MACISAAC CLARK & COMPANY PRIZE IN COMMUNITY LAW — LEGAL AID CLINIC (LAW 350A)** — A prize of \$300, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Community Law Legal Aid Clinic Course conducted at the Law Centre. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE MACLEAN SCHOLARSHIPS IN LEGAL HISTORY AND CRIMINAL LAW** — Up to three scholarships or prizes may be awarded annually to students in the Faculty of Law who have demonstrated high academic achievement in research and writing on the subjects of legal history or criminal law and procedure. The selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **MARTLET CHAPTER IODE SCHOLARSHIP IN LAW** — An annual scholarship of three hundred dollars (\$300) is awarded to the female student with the highest standing in the second year of the LL.B. Program. The scholarship was established by the Martlet Chapter of the IODE.

\* **THE RONALD S. NAIRNE MEMORIAL AWARD** — The Ronald S. Nairne Memorial Award is awarded annually to a student in the Faculty of Law who has attained academic standing in the year and whose contributions to the curriculum or extracurricular activities of the Faculty of Law, which have been based on the student's career experience prior to enrolling in the Faculty, have enhanced the quality of life and the academic experience of both students and Faculty members. The recipient will be selected by the Faculty of Law.

\* **NATIVE STUDENT SCHOLARSHIP IN LAW** — An award of \$1,500 is made annually to an outstanding native student entering the Faculty of Law at the University of Victoria. Preference will be given to a female student with a demonstrated interest in the area of native women's rights. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE NATHAN AND BEL NEMETZ BOOK PRIZE** — A prize, with a value of \$100, is awarded annually to the student who achieves the highest standing in the third year of the LL.B. program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE H.A.D. OLIVER PRIZE IN CRIMINAL LAW** — The prize is awarded annually to a member of the graduating class in Law who has demonstrated outstanding academic achievement in the field of Criminal Law. The prize is awarded by the Senate Committee on Awards on the recommendation of the Faculty of Law. The value of this prize will be approximately \$150.

**THE OWEN-FLOOD & CONSIDINE PRIZE IN EVIDENCE** — A prize of \$400, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Evidence Course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE JOSEPH M. PRODOR PRIZE IN TORTS** — A prize of \$500 is awarded annually to the student who achieves the highest grade in the law of Torts. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* Administered by the University of Victoria Foundation

**THE ROYAL TRUST PRIZE IN TRUSTS** — A prize of \$500, or such higher value as the donor may determine, will be awarded annually to a student who has demonstrated excellence in the Trusts course. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE RUSSELL AND DuMOULIN SCHOLARSHIP** — One or more scholarships are awarded annually to students in the second year of the Bachelor of Laws program who have high academic standing. The recipients of the scholarships will be employed by Russell and DuMoulin during the summer between the students' second and third year law and the firm will pay the tuition fees of the scholarship recipients for third year law at the University of Victoria and make a contribution of \$200 toward the purchase of books required by each recipient for third year law. The selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **THE J.C. SCOTT-HARSTON PRIZE IN WILLS** — The J.C. Scott-Harston Prize in the amount of \$200 is awarded annually to the law student who achieves the highest grade in the drafting of wills and who has demonstrated high academic achievement in the course in Wills and Succession. This prize has been established by the partners of Crease and Company to recognize the contributions of J.C. Scott-Harston, Q.C. to the profession and to the development of skills in the drafting of wills. The recipient will be selected by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE SHRUM, LIDDLE & HEBENTON ESSAY PRIZE IN LEGAL HISTORY** — An annual prize of \$1,000 will be awarded for an essay on a topic in legal history. The prize will be available to (i) undergraduate or graduate law students and (ii) recent law graduates of the Faculty of Law at either the University of Victoria or the University of British Columbia. Selection of the recipient will be made by a selection committee which reserves the right to withhold the prize if no suitable essay is submitted. The winning essay will be submitted for publication in an appropriate legal journal. Applicants must submit their essays to the Office of the Associate Dean, Faculty of Law, before June 1. The winner, if any, will be selected by July 1.

**THE SHRUM, LIDDLE & HEBENTON SUMMER SERVICE SCHOLARSHIP** — This scholarship is awarded annually to a student completing second year of the Bachelor of Laws program, who has achieved high academic standing and who has demonstrated proficiency in the legal skills and scholarship required for the practice of law. The recipient of the scholarship will be employed by Shrum, Liddle & Heberton during the summer months between second and third year law and the company will pay the tuition fees of the student for the third year of the student's Bachelor of Laws program at the University of Victoria. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE SWINTON AND COMPANY SCHOLARSHIP** — A scholarship is awarded annually to a student completing second year law who has shown academic excellence and who has demonstrated the qualities which are required for the practice of law. The recipient of the scholarship will be employed by Swinton and Company during the summer between second and third year law and Swinton and Company will pay the tuition fees of the student for the third year of the student's Bachelor of Laws program. The selection of the student will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**THE THORSTEINSSON, MITCHELL, LITTLE, O'KEEFE AND DAVIDSON PRIZE IN TAXATION** — A course prize of \$300 will be awarded to the student obtaining the highest grade in each teaching section of the basic course in Taxation offered in the Faculty of Law. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

**UNIVERSITY PUBLISHERS AWARD** — University Publishers presents two awards annually of \$225 each. One is made to a first year law student about to enter second year studies; a second is made to a second year law student about to enter third year studies. The awards will be based on the students' participation in law student affairs and student government, and upon the joint recommendation of the Law Students' Society and the Dean of the Faculty of Law.

**THE BERTHA WILSON SCHOLARSHIP** — A scholarship of \$600 donated by the University Women's Club of Victoria is awarded annually to the female student with the highest standing in year one of the LL.B. program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

\* **J. LYLE WILSON BOOK PRIZE IN LAW** — An annual award of \$75 is awarded to the law student who stands highest in the course in Administrative Law. The award is an honour of J.L. Wilson, formerly Solicitor

of the B.C. Hydro and Power Authority on Vancouver Island.

\* **THE WOOTTON SCHOLARSHIP IN LAW** — A scholarship of six hundred and fifty (\$650) will be awarded to a student who has completed, with high academic standing, the first or second year program in Law. The recipient shall have demonstrated proficiency in composition and legal research. The scholarship was endowed in 1976 by the Honourable Robert A. Wootton, former Justice of the Supreme Court of British Columbia, to honour members of the legal profession of his own family. The selection will be made by the Senate Committee on Awards upon the recommendation of the Faculty of Law.

#### Mathematics

\* **STEPHEN A. JENNINGS MEMORIAL SCHOLARSHIP** — Two thousand two hundred and fifty dollars (\$2,250) is awarded annually to an outstanding student entering the third or fourth year of an honours program offered by the Department of Mathematics. Preference will be given to a student who has performed well in the W.L. Putnam competition. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Mathematics.

\* **THE BETTY AND GILBERT KENNEDY SCHOLARSHIP IN MATHEMATICS** — An award of \$1,500 is made annually to an outstanding student beginning year 3 of an Honours or Major program in Mathematics. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Mathematics.

\* **THE MARK E. MOONEY MEMORIAL SCHOLARSHIP** — An award of \$250 is made annually to an outstanding third year student in an Applied Mathematics or a Mathematics and Physics Program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Mathematics.

\* **B.W. PEARSE SCIENCE SCHOLARSHIPS** — Four scholarships of four hundred dollars (\$400) each will be awarded to the top year student enrolled in an honours course in Biology, Chemistry, Mathematics, and Physics.

**SEASPAN INTERNATIONAL LTD. SCHOLARSHIP** — One hundred and fifty dollars (\$150) awarded annually to the student leading courses numbered 200 in any two of the following departments: Biology, Chemistry, Geography, Mathematics, Physics. The winner must continue his academic work at an approved university.

#### Music

\* **THE MURRAY ADASKIN PRIZE IN MUSIC COMPOSITION** — An annual award is made to an outstanding student in music composition. The recipient may not receive this award in two successive years. The selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **THE HARRY AND FRANCES MARR ADASKIN SCHOLARSHIP IN MUSIC HISTORY** — An annual award of three hundred dollars (300) given in honour of these distinguished Canadian musicians by Miss Rivkah Isaacs. The scholarship is awarded to an outstanding music history major entering the final year of undergraduate study and planning to go on to graduate study in musicology. In the case of two equally gifted candidates, need is to be the determining factor. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the faculty members of the School of Music.

\* **THE MURRAY AND FRANCES JAMES ADASKIN SCHOLARSHIP IN VIOLIN OR VIOLA** — An annual award of two hundred and seventy-five dollars (\$275) given in honour of these distinguished Canadian musicians by Miss Rivkah Isaacs. The scholarship is awarded to a student violinist or violist entering the third or fourth year of study in the performance program. In the case of two equally gifted candidates, need is to be the determining factor. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the faculty members of the School of Music.

\* **THE HAROLD BECKWITH MEMORIAL BOOK PRIZE IN MUSIC** — Given in memory of Harold Arthur Beckwith by his family. Awarded to a graduating Bachelor of Music student for excellence in music. Selection to be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **THE RALPH BARBOUR BURRY MEMORIAL SCHOLARSHIPS IN MUSIC** — Three scholarships in varying amounts (minimum award, \$500) are awarded annually to Music students. Preference will be given to entering students in any year. The awards will be based on excellence in music. In the case of two equally gifted candidates, need will be the determining factor. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* Administered by the University of Victoria Foundation.

\* **THE GERTRUDE DURAND MEMORIAL SCHOLARSHIP** — A scholarship of \$600 will be awarded annually to a piano student, in any year, who has demonstrated potential in areas of accompanying or teaching. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **THE FLETCHER PIANO SCHOLARSHIP** — A scholarship of \$400 will be awarded annually to an outstanding student, in any year of the Bachelor of Music program, whose principal instrument is the piano. The selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **THE IDA HALPERN MUSIC SCHOLARSHIP** — An annual award of three hundred and twenty-five dollars (\$325) given in honour of Dr. Ida Halpern by Miss Rivkah Isaacs. The scholarship is awarded to an outstanding student entering the third or fourth year of study toward the Bachelor of Music degree and who successfully uses in compositions aspects of the culture of the West Coast Indians. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

**THE HARBORD SCHOLARSHIP IN MUSIC** — An annual scholarship of five hundred dollars (\$500), donated by Mr. and Mrs. Justin V. Harbord, will be available to an outstanding student in the second, third, or fourth year of study for the Bachelor of Music degree. Selection will be made by the Senate Committee on Awards in consultation with the School of Music.

**THE JUDITH HARREMAN SCHOLARSHIP IN MUSIC** — An award of \$600 is made annually to an outstanding female student proceeding to year 3 or 4 in the Music program. Preference will be given to a student specializing in voice or piano. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **THE DR. AND MRS. W. CLARKE HORNING MEMORIAL PRIZE IN MUSIC**

\* **THE HORNING MEMORIAL SCHOLARSHIPS IN MUSIC** — A prize of at least \$1,000 and three scholarships of \$1,000 each will be awarded annually to promising composers, performers, teachers and scholars completing their third year of studies in the School of Music. Each of the four sections — Composition, Performance, Music Education and Music History, will nominate their most promising student. Selection of the Prize winner and Scholarship winners will be made by the Senate Committee on Awards on the recommendation of the Scholarship Committee of the School of Music.

**J.J. JOHANNESSEN SCHOLARSHIP IN MUSIC PERFORMANCE** — One or two awards of equal amounts up to a total of \$1,500 will be made annually to undergraduate music students from any part of the world demonstrating excellence and/or potential in performance, as soloists in the area of strings, piano and flute. Recipients may be newly submitted or returning students. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **THE REBECCA AND ESTHER LAZARUS SCHOLARSHIPS IN MUSIC** — Two annual awards each of \$275 made available by Miss Rivkah Isaacs for outstanding performers entering the third or fourth year of the University music program. One is to be given to a singer in memory of Rebecca Lazarus Isaacs, and the other is to be given to a pianist in memory of Esther Lazarus Levy. In the case of two equally gifted candidates for either or both of the above, need is to be the determining factor. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendations of the faculty members of the School of Music.

\* **PERFORMANCE SCHOLARSHIP IN MUSIC** — One or more awards are made annually to student(s) for outstanding achievement in performance. The recipient may be newly admitted or returning students. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music's Performance faculty.

\* **THE DOUGLAS ROSS MEMORIAL SCHOLARSHIP** — An award of four hundred dollars (\$400) is made annually to a student for outstanding achievement in piano performance. The recipient may be a new or a returning student. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

\* **SCHOOL OF MUSIC FACULTY STRING AWARDS** — Awards made on the recommendation of the School of Music faculty, subject to approval by the Senate Committee on Awards, given annually or as funds permit to outstanding violinists, violists, cellists, or double bassists, in recognition of performance ability. In cases of equal performance skill, need should be the determining factor. The awards are named in recognition of School of Music faculty who made personal contributions to inaugurate this fund, but it is further supplemented through proceeds

from scholarship concerts and other sources. The number and size of such awards will be determined annually by the School faculty.

\* **THE TAYLOR SCHOLARSHIP IN MUSIC** — An annual scholarship will be available to an outstanding student in any year of study for the Bachelor of Music degree. Selection will be made by the Senate Committee on Awards on the recommendation of the School of Music. The award is presented in honour of Dr. M.G. Taylor, the first President of the University of Victoria, and Mrs. Taylor, and is administered by the University of Victoria Foundation. If funds permit, additional awards may be made.

**THE DAISIE THIRLWALL SCHOLARSHIPS IN VIOLIN** — Up to three scholarships in varying amounts are awarded annually to gifted violinists who demonstrate excellence or potential in performance and who are registered in the Bachelor of Music program. Preference will be given to newly admitted students. In the event there are no qualified violinists in any given year, other string instrumentalists will be considered. In the case of equally qualified candidates, need shall be the determining factor. Selection will be made by the Senate Committee on Awards upon the recommendation of the School of Music.

**THE VICTORIA COUNCIL, KNIGHTS OF COLUMBUS MUSIC SCHOLARSHIP** — An annual scholarship of one hundred dollars (\$100) will be awarded to a student demonstrating outstanding achievement in the School of Music. Selection will be made by the Senate Committee on Awards on the recommendation of the School of Music.

### **Nursing**

\* **THE MARGARET A. EVANS MEMORIAL SCHOLARSHIP IN NURSING** — A scholarship of \$1000 will be awarded annually to a student entering the final year of Nursing at the University of Victoria, who has demonstrated both academic achievement and an interest in Gerontological Nursing. Selection of the recipient will be made by the Senate Committee on Awards on the recommendation of the School of Nursing.

\* **THE ROBERT S. EVANS MEMORIAL SCHOLARSHIPS** — Nine scholarships of seven hundred dollars (\$700) will be awarded annually to academically outstanding students who intend to continue their studies at the University of Victoria, as follows:

(a) One scholarship to a student in each of the Programs: Child Care, Nursing, and Social Work, on the recommendation of the respective Directors;

(b) One scholarship to a student who has completed Year III in an Astronomy program;

(c) Five scholarships for award within the student body at large.

If no suitable candidates can be found in categories (a) or (b), additional awards can be made in category (c).

**THE ESTHER S. GARDOM SCHOLARSHIP** — An award of \$600 is made annually to an outstanding woman student proceeding to year 4 of the Bachelor of Science in Nursing (B.S.N.) program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Nursing.

**THE GERONTOLOGY ASSOCIATION OF B.C. AWARD** — An award of \$100 is made annually to a good student who has demonstrated a commitment to the well being of older adults and is pursuing a degree program in Nursing or Social Work. Selection of the recipient will be made by the Senate Committee on Awards upon the joint recommendation of the School of Nursing and the School of Social Work.

\* **THE MRS. ANNIE GRESKIW SCHOLARSHIP IN NURSING** — An award of \$2000 is made annually to an outstanding student proceeding to year 4 of the Nursing program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Nursing.

**THE RICKER NURSING SCHOLARSHIP** — Two hundred dollars (\$200) to be awarded annually to a student who has completed the first year of the program with good grades and who has demonstrated potential to provide leadership within a professional role. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Nursing.

### **Pacific and Asian Studies**

**THE JAMES BOUTILIER PACIFIC AND ASIAN STUDIES TRAVEL AWARD** — An annual travel award to be given to an outstanding student enrolled in a General Program or Major Program in the Department of Pacific and Asian Studies. The award will reimburse the student to a maximum of \$1,500 for expenses incurred during a study tour of the

\* Administered by the University of Victoria Foundation.

South Pacific region, to be taken during the Summer Session. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Pacific and Asian Studies. The requirement that the award winner must return to the University of Victoria in the next regular session and must enroll in a full program does not apply to this award.

\* **THE GREGORY HEITZMANN BOOK PRIZE IN JAPANESE STUDIES** — A book prize is awarded annually to the student who has achieved the highest standing in Japanese Studies courses each Winter Session. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Pacific and Asian Studies.

#### Philosophy

\* **THE DAVID KAPLAN BOOK PRIZE IN HONOURS PHILOSOPHY** — Offered annually to the student graduating in Honours Philosophy with the highest standing in those philosophy courses required for the Degree.

**THE XI NU CHAPTER, BETA SIGMA PHI SORORITY ANNUAL PRIZE** — One hundred dollars (\$100) to be awarded to a promising and deserving woman student in the third year of a course or courses in Philosophy, Psychology, Sociology, and proceeding to further university work, for books to be chosen in consultation with the winner.

#### Physics

**THE BRITISH COLUMBIA TELEPHONE COMPANY SCHOLARSHIP** — Seven hundred & fifty dollars (\$750) awarded to a student of first or second year for excellence in Physics. The winner must continue university studies.

\* **THE JOHN L. CLIMENHAGA SCHOLARSHIP** — A scholarship of \$1250 is awarded annually to an outstanding student completing second year and entering third year of an Honours or Major program in Physics or Astronomy at the University of Victoria. Selection will be made by the Senate Committee on Awards upon the recommendation of the Physics Department.

\* **THE CLARENCE C. COOK MEMORIAL SCHOLARSHIP** — An award of \$325 is made annually to the first year student who achieves the highest standing in 3 units of Physics from Physics 100, 110, 120 or 220 and who plans to take further courses in Physics at the University of Victoria. In the case of a tie, a recommendation will be made in consultation with the instructor(s) involved.

\* **THE GEOLOGICAL ASSOCIATION OF CANADA SCHOLARSHIP** — An award of \$450 is made annually to an outstanding student who is pursuing a full time course of study at any Canadian University directed toward a career in solid earth science. Selection of the recipient will be made by the Senate Committee on Awards upon a joint recommendation from the Departments of Geography and Physics.

**THE MOLSON COMPANIES SCHOLARSHIPS** — A scholarship of five hundred dollars (\$500), one in each of the departments of Chemistry, Physics, and Biochemistry/Microbiology, is awarded annually to an outstanding student completing year three in a Major of Honours program. Preference will be given to students who have indicated an interest in the business or scientific aspects of the brewing industry. Selection of each recipient will be made by the Senate Committee on Awards upon the recommendation of the department involved.

\* **B.W. PEARSE SCIENCE SCHOLARSHIPS** — Four scholarships of four hundred dollars (\$400) each will be awarded to the top year student enrolled in an honours course in Biology, Chemistry, Mathematics and Physics.

**SEASPAN INTERNATIONAL LTD. SCHOLARSHIP** — One hundred and fifty dollars (\$150) awarded annually to the student leading courses numbered 200 in any two of the following departments: Biology, Chemistry, Geography, Mathematics, Physics. The winner must continue academic work at an approved university.

#### Political Science

**CANADIAN INSTITUTE OF INTERNATIONAL AFFAIRS (VICTORIA BRANCH) BOOK PRIZE** — An annual prize of one hundred dollars (\$100) offered by the Victoria Branch, Canadian Institute of International Affairs in alternate years to: (1) the leading student in the History Department at the University of Victoria in a senior course dealing with Canada's foreign policy; (2) and the leading student in Political Science 240.

**THE IRMA DUNN SCHOLARSHIP** — Four hundred dollars (\$400) to be awarded annually by the Lady Laurier Club of Oak Bay to a worthy and deserving student entering fourth year at the University and undertaking a course in Political Science.

**THE LADY LAURIER CLUB, ELIZABETH FORBES MEMORIAL BOOK PRIZE** — An award for the purchase of books is made annually to the top female student in the third year of Political Science program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Political Science.

\* **THE ROBERT LORNE STANFIELD BOOK PRIZES IN POLITICAL SCIENCE** — To be awarded to the top two students in each of Political Science 100 and Political Science 360.

\* **THE WALTER D. YOUNG BOOK PRIZES** — Two prizes of \$150 each are awarded annually to the two students registered in first or second year who achieve the highest standing in three units of second year Political Science courses. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Department of Political Science.

\* **THE WALTER D. YOUNG PRIZES IN POLITICAL SCIENCE 100** — Annual awards of \$150 - \$200 to be awarded to the top student in each section of Political Science 100. Selection of the recipients will be made by the Senate Committee on Awards upon the recommendation of the Department of Political Science.

\* **THE WALTER D. YOUNG SCHOLARSHIP** — A scholarship of \$2,500 is awarded annually to an outstanding student entering the graduating year of an honours or major program offered by the Department of Political Science at the University of Victoria. The recipient will be selected by a committee after consideration of the following criteria: grades in Canadian studies courses, particularly the grade in an introductory course in Canadian government, political science grades, other post-secondary grades and other activities undertaken at the University and in the wider community. Application forms for this scholarship are available from the Department of Political Science and must be submitted not later than March 15.

Note: The committee may require that candidates for the scholarship submit an essay or term paper done by them for an upper level university course. References may be sought and an interview may be held.

#### Psychology

\* **THE W.H. GADDES SCHOLARSHIP** — A scholarship of \$1500 will be awarded annually to a third or fourth year student in a Major or Honours program in Psychology, which includes at least one course in each of the physiological and the psychological bases of human development. The recipient may continue studies at the University of Victoria or at some other recognized university. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Psychology.

**ROTARY CLUB OF SAANICH SCHOLARSHIP** — Four hundred dollars (\$400) to be awarded annually to the full time third year student who obtains the highest standing in two upper year Psychology courses and is continuing studies at the University of Victoria or at some other recognized university.

**THE B.C. PSYCHOLOGICAL ASSOCIATION GOLD MEDAL** — Awarded annually to a graduating student in the Honours Psychology program who has demonstrated outstanding achievement in the study of Psychology.

**THE XI NU CHAPTER, BETA SIGMA PHI SORORITY ANNUAL PRIZE** — One hundred dollars (\$100) to be awarded to a promising and deserving woman student in the third year of a course or courses in Philosophy, Psychology, Sociology, and proceeding to further university work, for books to be chosen in consultation with the winner.

#### Slavonic Studies

\* **THE MICHAEL DANE MEMORIAL BOOK PRIZE IN RUSSIAN** — An annual book prize will be given to the top student in first year Russian who proposes to continue the study of Russian for at least one further year at the University. The winner and the prize will be selected by the Senate Committee on Awards upon the recommendation of the Department of Slavonic Studies.

**GOVERNMENT OF THE SOCIALIST REPUBLIC OF YUGOSLAVIA BOOK PRIZE** — An annual book prize will be awarded to the best student in Serbo-Croatian. Selection to be made by the Senate Committee on Awards upon the recommendation of the Department of Slavonic Studies.

**THE RUSSIAN WORKSHOP IN THE SOVIET UNION TRAVEL AWARD** — This award will provide funds to assist Slavonic Studies students, who enroll in Russian 321, to undertake a one-month study in

\* Administered by the University of Victoria Foundation.

the Soviet Union. The selection of students will be made by the Senate Committee on Awards upon the recommendation of the Department of Slavonic Studies.

\* **THE J.B. WOOD BOOK PRIZE IN RUSSIAN** — An annual book prize will be given to the top student in first year Russian who proposes to continue the study of Russian for at least one further year at the University. The winner and the prize will be selected by the Senate Committee on Awards upon the recommendation of the Department of Slavonic Studies.

#### **Social Work**

**BRITISH COLUMBIA ASSOCIATION OF SOCIAL WORKERS PRIZE** — A prize of two hundred and fifty dollars (\$250) is awarded annually to an outstanding student who has completed the first year of the program in the School of Social Work. The selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the School of Social Work.

\* **THE ROBERT S. EVANS MEMORIAL SCHOLARSHIPS** — Nine scholarships of seven hundred dollars (\$700) each will be awarded annually to academically outstanding students who intend to continue their studies at the University of Victoria, as follows:

- (a) One scholarship to a student in each of the Programs: Child and Youth Care, Nursing, and Social Work, on the recommendation of the respective Directors;
  - (b) One scholarship to a student who has completed Year III in an Astronomy program;
  - (c) Five scholarships for award within the student body at large.
- If no suitable candidates can be found in categories (a) or (b), additional awards can be made in category (c).

**THE GERONTOLOGY ASSOCIATION OF B.C. AWARD** — An award of \$100 is made annually to a good student who has demonstrated a commitment to the well being of older adults and is pursuing a degree program in Nursing or Social Work. Selection of the recipient will be made by the Senate Committee on Awards upon the joint recommendation of the School of Nursing and the School of Social Work.

#### **Sociology**

**THE XI NU CHAPTER, BETA SIGMA PHI SORORITY ANNUAL PRIZE** — One Hundred dollars (\$100) to be awarded to a promising and deserving woman student in the third year of a course or courses in Philosophy, Psychology, Sociology, and proceeding to further university work, for books to be chosen in consultation with the winner.

#### **Theatre**

\* **CRESTVIEW-CHELSEA THEATRE AWARD** — An award of three hundred and fifty dollars (\$350) will be offered at the discretion of the Department of Theatre to a promising and deserving student in Theatre who is continuing at the University of Victoria.

\* **GWEN DOWNES MEMORIAL BOOK PRIZE** — Awarded to the student who gives the best performance in a university play.

\* **THE ELISABETH JACKSON SCHOLARSHIP IN THEATRE** — A scholarship of \$800 is awarded annually to a third year female student with high academic standing who is continuing in the Theatre program at the University and who, in the opinion of the Department, displays outstanding promise in acting. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Theatre.

\* **THE BARBARA McINTYRE SCHOLARSHIP IN THEATRE** — An annual scholarship of \$1200 will be awarded to a third or fourth year

student who, in the opinion of the Department of Theatre, displays outstanding ability in the area of theatre in education. If there is no theatre in education candidate, the award may go to a student in any branch of theatre work. A third year student must use the award to complete fourth year studies at the University of Victoria Theatre Department; a fourth year student is allowed the option of furthering studies at a recognized school of theatre or university. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Theatre.

\* **OPENING NIGHT SCHOLARSHIP** — A scholarship of \$400 is awarded annually to the second year theatre student with the highest academic standing in the first and second year theatre courses who is continuing in the Theatre Program at the University of Victoria. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Theatre.

\* **THE DOROTHY SOMERSET SCHOLARSHIP IN THEATRE** — An annual scholarship of two hundred and seventy-five dollars (\$275), made available by Miss Rivkah Isaacs of Victoria, will be awarded to that third or fourth year student who, in the opinion of the Department of Theatre, displays outstanding talent and devotion to any branch of theatre work. A third year student must use the award to complete fourth year studies at the University of Victoria Theatre Department; a fourth year student is allowed the option of furthering studies at a recognized school of theatre, such as the National Theatre School or the Royal Academy of Dramatic Art. Selection will be made by the Senate Committee on Awards upon the recommendation of the Department of Theatre.

#### **Visual Arts**

**THE PAT MARTIN BATES SCHOLARSHIP** — An award of \$600 is made annually by the University Women's Club of Victoria to the most outstanding woman student completing the third year of a program in Visual Arts. The selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Visual Arts.

\* **THE HEATHER CRAGG MEMORIAL SCHOLARSHIP** — An award of one thousand six hundred dollars (\$1,600) is made annually to an outstanding student completing year two of a Visual Arts program. The student who receives the award at the end of year two may have the award renewed at the completion of year three of the program. The selection of the recipient and the approval of the renewal will be made by the Senate Committee on Awards upon the recommendation of the Department of Visual Arts.

**THE JOHN DEREK CROWTHER MEMORIAL SCHOLARSHIP** — An award of \$300 is made annually to an outstanding student completing year 2 of a Visual Arts program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Visual Arts.

**THE HEINZ JORDAN MEMORIAL SCHOLARSHIP** — An award of five hundred dollars (\$500) is made annually to an outstanding student completing year two of a Visual Arts program. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Visual Arts.

**THE JOHN WYATT PRICE BOOK PRIZE IN PHOTOGRAPHY** — A book prize is awarded annually to a student majoring in Visual Arts with an emphasis in photography. Preference will be given to a student who has demonstrated an interest in portraiture. Selection of the recipient will be made by the Senate Committee on Awards upon the recommendation of the Department of Visual Arts.

## **SECTION 4**

### **UNDERGRADUATE AWARDS FOR WHICH APPLICATION MUST BE MADE AT THE UNIVERSITY OF VICTORIA**

These awards are open only to students who attend the University of Victoria in the Winter Session specified in this calendar. Application for these awards must be made on forms available in the Office of the Administrative Registrar, unless otherwise indicated, and submitted by the deadline stated in the terms of reference.

**THE ALAN BOAG SCHOLARSHIP** — A scholarship of one thousand dollars (\$1,000), the gift of the trustees of a fund established by the late Alan Boag, is available for a student who is taking his major in History,

Economics, Law, Political Science, or Sociology. This scholarship, which is open to graduates, or to undergraduates who have completed at least two years at the University, will be awarded for the best essay or report on some aspect of socialism. In making the award special consideration will be given for originality in analysis and treatment. The award will be made on the recommendation of a Selection Committee representing each of the areas of study mentioned above. If no essay reaches a required standard, the award will be withheld. Students intending to compete for this scholarship must obtain the approval of their essay subject from the Department of Political Science. Essays must be submitted not later than April 30.

\* Administered by the University of Victoria Foundation.

\* **THE L. AND G. BUTLER SCHOLARSHIP FOR THE DISABLED** — An award of \$600 is made annually on the basis of academic performance to a disabled student attending the University of Victoria. The recipient may be a newly admitted or returning student. Students interested in the scholarship should refer to the paragraph on undergraduate scholarship eligibility in the General Regulations (page 268). Application forms may be obtained from the Office of the Administrative Registrar and must be submitted by April 15. Selection of the recipients will be made by the Senate Committee on Awards.

**THE CANADIAN UNION OF PUBLIC EMPLOYEES SCHOLARSHIPS** — C.U.P.E. will make available the sum of nine hundred dollars (\$900) to provide scholarships for three deserving and promising students at the University of Victoria who are continuing their studies here. One award will be given to a student entering year 3; two awards will be given to students entering year 2. The selection will be made on the basis of academic standing. These scholarships are open only to sons and daughters of members of contributing locals of the Canadian Union of Public Employees of the Greater Victoria area. Recipients will be selected by the Committee on Awards in consultation with officials of the C.U.P.E. Scholarship Fund. Applications must be submitted not later than July 31.

\* **LUCY AND MARGARET CORBET SCHOLARSHIP** — Six hundred dollars (\$600) awarded annually to a student who has completed pre-medical studies at the University of Victoria and is proceeding to medical school in September. Selection of the winner will be made by the Senate Committee on Awards on the basis of sound academic achievement and demonstrated financial need. Candidates must provide written acceptance of their entry into an approved medical school. Applications must be submitted not later than April 30.

\* **THE MRS. ANNIE GRESKIW SCHOLARSHIP IN PREMEDICAL STUDIES** — An award of \$2000 is made annually to an outstanding student who is proceeding to premedical studies at the year 3 or 4 level at the University of Victoria. Applicants must provide details of their plans for future medical school attendance on the application form. Application forms are available from, and must be returned to, the Office of the Administrative Registrar by April 30. Selection of the recipient will be made by the Senate Committee on Awards.

**THE NORMAN LIDSTER AWARD** — An award of up to one hundred dollars (\$100) will be given annually to a blind student in any year of any faculty for the purchase of special equipment or books. The award is made in memory of Norman Lidster, who authored several books despite being both blind and paraplegic. Selection of the recipient will be made by the Senate Committee on Awards. Applications must be submitted not later than April 30.

\* **THE OLIVER PRENTICE MEMORIAL — SAANICH ROTARY SCHOLARSHIP** — Two hundred and fifty dollars (\$250) awarded annually to a student of outstanding merit and promise and qualities of character indicating worthiness to hold the scholarship, who is planning a business career and is continuing his studies at a recognized university or is articled to a chartered accountant, or C.G.A. Selection of the student is to be made by the Committee on Awards of the University of Victoria. Applications must be submitted before April 30.

\* **THE SENATOR WILLIAM JOHN MACDONALD TRAVELLING SCHOLARSHIP** — This award was established by Mrs. T.G. Keir in memory of her grandfather, Senator Macdonald.

The scholarship is awarded every second year, beginning in 1984, to an outstanding student who has received an undergraduate degree from the University of Victoria since the last competition and who is planning to undertake a graduate degree in Arts, Science or Fine Arts at a Scottish university. If there are no suitable candidates wishing to study at a Scottish university then applicants wishing to attend any United Kingdom university will be considered.

The award will have a value of \$11,000 and will be payable in two \$5,500 installments: one for each of the first two years of the student's graduate program.

Application packages are available from the Secretary of the Senate Committee on Awards, Office of the Administrative Registrar, University Centre. The application package includes three referee forms to be completed by individuals who are familiar with the applicant's work. The application form and the referee forms must all be submitted by November 30.

The selection of the recipient will be made by a Committee, appointed by the President, which is composed of a Dean of one of the Faculties, an individual of professional rank and the Chairman of the Senate Committee on Awards. Decisions reached by the Committee are final.

Awards are made after the results of the final examinations for the relevant Winter Session have been determined.

\* **THE HELEN RODNEY MEMORIAL SCHOLARSHIP** — A scholarship of \$ TBA is awarded annually to a student who has graduated from the University of Victoria and who is proceeding to a graduate program in Library Science or a related discipline. This award is tenable at a Canadian university. Selection of the winner will be made by the Senate Committee on Awards in consultation with the University Librarian. Candidates must provide written evidence of their acceptance to an approved program. Applications must be submitted not later than April 30.

\* **THE ANDREW SOLES SCHOLARSHIP** — A scholarship of \$ TBA will be awarded annually to an outstanding student, who is registered in a B.A. program at the University of Victoria, and is or was a resident of the Kootenay region of B.C. Application forms are available from the Office of the Administrative Registrar and must be returned by April 30. Selection of the recipient will be made by the Senate Committee on Awards.

\* **THE UNIVERSITY CHALLENGE SCHOLARSHIPS** — One or more scholarships to a total of \$675 to be awarded annually from funds won on the CTV Television Program "University Challenge" by Victoria teams. The fund was started in 1971 by a team consisting of Glen Paruk, Robert McDougall, Denis Johnston and Bruce Izard, coached by Professor Alfred Loft. The selection will be made by a joint Student-Faculty Committee under the Senate Committee on Awards on the basis of outstanding service by the candidate to the community and/or the University, coupled with proven high academic ability. Students may apply directly to the Committee or be nominated by a second party but the application must bear the nominee's signature and be accompanied by a letter from the nominator or nominee describing the nominee's qualifications to hold the scholarship. Applications must be submitted not later than April 30.

**UNIVERSITY OF VICTORIA ALUMNI AWARDS** — The University of Victoria Alumni Association offers annually a number of scholarships of \$1,500 each made possible through contributions to the annual Alumni Fund Drive. The Scholarships are open to University of Victoria students entering one of the two final years of undergraduate studies at the University.

Selection of the successful candidates is based upon the following criteria:

- high scholastic achievement as indicated by the Winter Session grades;
- demonstrated contributions to University and/or community activities as determined by the Selection Committee of the Alumni Association;
- the satisfying of the University's General Regulations pertaining to undergraduate scholarships as outlined in the Calendar — page 268.

The selection process consists of interviews of selected students in March of each year, followed by an examination of the final grades achieved as soon as they are available, normally in the month of May. Winners of Alumni Scholarships may not hold any other award administered by the University having a value greater than \$2,500. Also, winners who are eligible for consideration a second time must be renominated. Nominations from Schools and Departments of the University must be made by a faculty member and endorsed by the Director of a School or Chairman of a Department and must be received in the Alumni Association office no later than March 1 of each year. Nomination forms are available in the Alumni Association Office.

**THE VICTORIA MEDICAL SOCIETY SCHOLARSHIP** — One thousand dollars (\$1,000) is available to a student who wishes to pursue a career in Medicine, has completed at least two years of study at the University of Victoria, and is proceeding to a medical school in Canada next September. Candidates must possess those qualities of character and mind which will lead to success as a medical practitioner, and must have demonstrated sound academic achievement, with at least Second Class standing. Financial need will also be considered. Candidates must provide written acceptance of their entry into an approved medical school. The award will be made by a committee consisting of representatives from the Committee on Awards of the University and the Victoria Medical Society Scholarship Committee, and will be paid through the Bursar of the medical school involved. The successful candidate will be notified in August. The award will be forfeited if the candidate has not entered medical school by January 1989 at the latest. Application forms are available from, and must be returned to, the Office of the Administrative Registrar before April 30.

**VICTORIA REAL ESTATE BOARD AWARDS** — \$750 awarded annually as a scholarship and \$750 awarded annually as a bursary, to students registered at the University of Victoria who are dependants of members

\* Administered by the University of Victoria Foundation.

of the Victoria Real Estate Board. Students registered at the University of Victoria who find that they must transfer to another university in order to complete their chosen program are eligible to apply for these awards. Selection of the recipients will be made by the Senate Committee on Awards. Applications must be submitted not later than April 30.

**THE WALTER D. YOUNG SCHOLARSHIP** — A scholarship of \$2,500 is awarded annually to an outstanding student entering the graduating year of an honours of major program offered by the Department of Political Science at the University of Victoria. The recipient will be selected by a committee after consideration of the following criteria: grades

in Canadian studies courses, particularly the grade in an introductory course in Canadian government, political science grades, other postsecondary grades and other activities undertaken at the University and in the wider community. Application forms for this scholarship are available from the Department of Political Science and must be submitted not later than March 15.

Note: The committee may require that candidates for the scholarship submit an essay or term paper done by them for an upper level university course. References may be sought and an interview may be held.

## SECTION 5

### UNDERGRADUATE AWARDS ADMINISTERED BY THE OFFICE OF AWARDS AND FINANCIAL AID THE UNIVERSITY OF BRITISH COLUMBIA 2075 WESBROOK PLACE, VANCOUVER, B.C. V6T 1W5

Students who submit applications for scholarships to the University of British Columbia and who are competing on the basis of attendance at the University of Victoria, must forward an official transcript of their academic record at the University of Victoria, preferably accompanying the application.

**Scholarships which must be applied for on the appropriate form by May 15 unless otherwise stated.**

**BARBARA E. ADAMS SCHOLARSHIP** — This scholarship is offered annually by the Canadian Paraplegic Association, B.C. Division, to assist mobility impaired students to pursue and achieve their career goals. Recipients must be residents of British Columbia, Canadian Citizens or landed immigrants, and are normally expected to attend Canadian educational facilities.

The award is named in honour of Barbara E. Adams, whose life's work has been dedicated to helping the injured and disabled.

Applications and further information are available from the Canadian Paraplegic Association, B.C. Division, 780 S.W. Marine Drive, Vancouver, B.C., V6P 5Y7.

**THE EARL KINNEY MEMORIAL SCHOLARSHIP** — This scholarship in the amount of \$750 has been made available by the Graphic Communications International Union, Local 525, to students entering the second or higher year of a full program of studies at the University of British Columbia, the University of Victoria or Simon Fraser University. To be eligible, an applicant must be a member, or the son, daughter, or legal ward of a member in good standing and must enclose a letter from the Union attesting to their eligibility. The award will normally be made to the applicant with the highest standing as determined by The University of British Columbia.

**THE INTERNATIONAL LONGSHOREMEN'S AND WAREHOUSEMEN'S UNION UNDERGRADUATE SCHOLARSHIPS** — Three scholarships of \$350 each are offered to members, sons and daughters of members, in good standing, of the International Longshoremen's and Warehousemen's Union. They are open to students in attendance at the University of British Columbia, the University of Victoria, Simon Fraser University, the British Columbia Institute of Technology, or any regional college in British Columbia who will continue in a full program of studies in the next session in an undergraduate faculty. These scholarships will normally be awarded to the candidates with the highest standing as determined by the results of the Final Sessional Examinations conducted in April by the named institutions. The donors reserve the right to withhold awards if the academic standing of candidates is not sufficiently high or to re-award scholarships if winners receive other scholarships of substantial value.

**THE THOMAS P. MAYES SCHOLARSHIP** — In memory of Thomas P. Mayes, who until his death in 1968, served as secretary of the Union, the International Longshoremen's and Warehousemen's Union offers an undergraduate scholarship of \$350 to members, and sons and daughters of members, in good standing. The terms and conditions of award are the same as for the three International Longshoremen's and Warehousemen's Union Undergraduate Scholarship, described elsewhere in this section.

**THE ANNE WESBROOK SCHOLARSHIP** — This scholarship in the amount of \$1000, given by the Faculty Women's Club of the University of B.C., was established in 1919 to honour Anne Westbrook, wife of the

first President of U.B.C., and a founding member and Honorary President of the Club until her death in 1957. It will be awarded to a woman student who has obtained a baccalaureate degree from this university and is continuing her studies at the graduate level or in the Faculties of Medicine, Dentistry or Law at this university or any other approved university; or to a woman who, after 3rd year of university studies, is proceeding directly to a degree in Medicine, Dentistry or Law at this university or any other approved university.

### UNDERGRADUATE AWARDS ADMINISTERED BY OTHER INSTITUTIONS

**ANDRES WINES LTD. SCHOLARSHIP** — A scholarship of five hundred dollars (\$500) will be awarded to an undergraduate student at the University of British Columbia, Simon Fraser University, or University of Victoria. This award will be made to a student who is the son or daughter of an employee of Andres Wines or grape grower shipping to Andres Wines. If no one is available in this category it will be awarded to a student who will undertake a project in the field of winemaking either in Microbiology, Engineering, Chemistry, Agriculture or Economics. Application forms are available from Andres Wines (B.C.) Ltd. at 2120 Vintner Street, Port Moody, British Columbia V3H 1W8, and should be submitted no later than August 30. The award will be made by the donor.

**THE BAY SERVICE AWARD** — A Service Award offered by The Bay (Victoria) is open in competition to students completing Third Year Arts and proceeding to a higher year. Preference will be given to students interested in Department Store careers. To be eligible for this award applicants must qualify in respect to academic standing, ability and personality, and should be considering possible employment with The Bay on graduation. Under terms of the award, employment with The Bay will be guaranteed during the summer vacation preceding the fourth year at the University of Victoria. Subject to satisfactory performance, a winner will, on graduation, be given an opportunity to apply for an executive career with the Company. Interested students should apply to the Personnel Manager, The Bay, not later than March 15. Selection will be made by a representative of The Bay.

**ELIZABETH BENTLEY EASTERN STAR SCHOLARSHIPS** — The Order of the Eastern Star offers annually a number of scholarships to students who have completed at least two years of University courses. Scholarships are awarded on the basis of need, marks and difficulty of courses. Persons eligible are members, wives, husbands, father, mothers, sisters, brothers, sons, daughters, grandchildren or stepchildren of members of the Order of the Eastern Star of B.C. Applications should be sent to: Grand Secretary, Mrs. A. Brooke, 3854 West 38th Avenue, Vancouver, B.C. V6N 2Y4 by July 15.

**BRITISH COLUMBIA HISTORICAL FEDERATION SCHOLARSHIP** — \$500 to be awarded to a student entering 4th year studies with a major or honours in British Columbia History. Applicants are asked to write a letter indicating their special interest(s) in British Columbia History. This letter plus two letters of recommendation from professors, and a transcript of marks, should be submitted no later than June 30, to British Columbia Historical Federation Scholarship, P.O. Box 35326, Station E, Vancouver, B.C., V8R 6S4.

**RAYMOND CREPAULT, Q.C. MEMORIAL SCHOLARSHIP** — In memory of Raymond Crepault, Q.C. and to commemorate his accomplishments and his special contribution to the Canadian broadcasting industry, as well as to emphasize his deep commitment, as a French Canadian, to the unity of Canada, the Raymond Crepault estate, Radiomutuel and The Canadian Association of Broadcasters are pleased to announce the creation of a scholarship to be granted to a person wishing to complete his training in journalism or communications with a

view to subsequent service in electronic journalism (radio and/or television). This is an annual award of \$2,500 which Radiomutuel will present on the occasion of the Annual meeting of the Canadian Association of Broadcasters. It is offered to any French speaking Canadian citizen interested in improving his or her skills in the area of electronic journalism (radio and/or television), through university training or the equivalent thereof, on a full-time basis, in a Canadian institute.

Nominations will be accepted from persons meeting any of the following requirements:

- University graduation in any discipline (first degree).
- University graduation or current studies in communications or journalism (first degree).
- Graduation in broadcasting (radio and TV) technology from a technical institute of recognized standing or the equivalent thereof.
- Current employment in broadcasting but wishing to complete training in this field.

Relevant experience in electronic journalism or any related field could be a major asset.

A selection board of three persons appointed by the Canadian Association of Broadcasters, with the approval of Radiomutuel, will take the following factors into consideration:

1. The candidate's background;
2. The candidate's motivation;
3. Recommendations submitted by the candidate's professor, colleagues or employers, as the case may be;
4. The ability of the candidate to begin, and more particularly, to complete such studies;
5. The candidate's financial need;
6. Whether the candidate is, or not, a Canadian citizen.

The scholarship may be renewed for an additional year, according to the validity of the research project or that of the course content.

All applications must be submitted no later than February 28 of each year (as indicated by the postmark) to the Canadian Association of Broadcasters.

Additional information and application forms may be obtained from Mlle. Danielle Langlais, Canadian Association of Broadcasters, P.O. Box 627, Station "B", Ottawa, Ontario K1P 5S2.

**C.W. DEANS MEMORIAL SCHOLARSHIP** — A scholarship of \$250, established by the Women's Auxiliary to the Canadian Paraplegic Association, B.C. Division, is offered annually to spinal cord injured students. The scholarship will be available to a student beginning or continuing studies in one of the universities in British Columbia. Preference will be given to a student beginning or continuing his/her studies in engineering, but should there be no suitable candidate from that faculty, it will be awarded to a deserving spinal cord injured student in another faculty. The award will be made to a student with a good academic record. First preference will be given to candidates nominated by the B.C. Division of the Canadian Paraplegic Association. Candidates wishing to be considered for these awards should contact the Canadian Paraplegic Association, 780 S.W. Marine Drive, Vancouver, B.C. V6P 5Y7. Applications should be received by the Association by August 15th.

**THE ENGINEERING INSTITUTE OF CANADA, VANCOUVER ISLAND BRANCH BURSARY/SCHOLARSHIP** — Bursaries or Scholarships are offered annually to students who have graduated from a high school located on Vancouver Island and who have completed the first year of a degree course in Engineering at an institution of higher education. Further information may be obtained from The Engineering Institute of Canada, Vancouver Island Branch, Scholarship Society, Box 5343, Station "B", Victoria, B.C., V8R 6S4. Applications should be obtained from and submitted by July 1 to the above address.

**FEDERATION OF FRANCO-COLUMBIANS SCHOLARSHIP** — An annual scholarship of \$1,000, awarded by the Federation of Franco-Columbians to a candidate wishing to undertake a year of study in a French language university, preferably in Canada. Priority will be given to a student registered at a British Columbia university, having completed the equivalent of two full years of university study, having sufficient knowledge of French to study profitably at a French language university, intending to teach in the Province of British Columbia. Applications should be addressed to the Secretary of the Scholarship Committee, Federation of Franco-Columbians, 1013-B Brunette, Maillardville, B.C. The application must include: a letter in which the candidate outlines his reasons for applying, a copy of his academic transcript, two letters of recommendation to be sent directly to the Secretary of the Scholarship Committee. Applications must be received by March 1.

**THE ICELANDIC CANADIAN CLUB OF BRITISH COLUMBIA SCHOLARSHIPS** — The Icelandic Club of British Columbia provides financial assistance to students of Icelandic origin who are beginning or

continuing a program of post-secondary education in B.C. The B.T.H. Marteinsson Memorial Scholarship for a student in a Health related field and the Anne Eyford Memorial Scholarship to be awarded to a student in Fine Arts, will be awarded annually. Selection of recipients will be made on the recommendation of a Scholarship Committee selected by the supporting organization. Each award will be worth a minimum of \$200. Additional awards to students beginning or continuing a program of full time post-secondary education may be authorized by the Society from time to time. Students should contact Miss M. Norman, Secretary, Scholarship Committee, The Icelandic Canadian Club of B.C., 903-999 Gilford Street, Vancouver, B.C., V6G 2N8, to request application forms. Completed applications must be returned to the Secretary by September 1.

**MUNGO MARTIN MEMORIAL AWARDS** — Will be made twice annually from the proceeds of the Mungo Martin Memorial Fund, raised by public subscription under the sponsorship of the B.C. Indian Arts Society of Victoria, B.C., to commemorate Mungo Martin, the late Kwakiutl chief, artist, philosopher and carver, who did so much to revive appreciation of Indian art and traditions of the Northwest Coast, winning renown far beyond its boundaries. The Fund is administered by a Board of Directors. Its members serve without remuneration. The Board of Directors is the sole authority adjudicating awards and its decisions are final. Awards to be made in any amount or amounts in any year within the limitations of available funds at the sole discretion of the trustees. (Awards normally expected to be from \$100 to \$400). The purpose of the awards is to assist people of Indian racial background to further their education, vocational training, skills and competence in Indian arts and handicrafts. While age and circumstances of qualifying candidates may vary considerably, preference will be given to young people.

Candidates for awards must be of Indian racial background and must be domiciled in the province of British Columbia at the time of application. The recipient of an award may apply for a further award in a subsequent year. It is emphasized that these awards are open not only to those who wish to further their general education or skills, but in particular to those who seek to do creative work to further the artistic heritage of the Indian peoples, in their painting, carving, music, dance, folklore or language. Applications for awards should be made on forms provided by the Society and may be mailed at any time for consideration at periodic meetings of the Board, to the following address: Velva B. Rossiter, 1340 Ryan Street, Victoria, B.C., V8T 5A7.

**THE WILLIAM McCALLUM MEMORIAL SCHOLARSHIP** — The William McCallum Memorial Scholarship for the study of Law was established in 1977 in recognition of the contributions and many years of service given to Dawson College by the late William McCallum, Chairman of the Board of Governors from 1971 to 1977. This scholarship is awarded annually to a graduate of Dawson College entering, or already studying, Law. The scholarship is renewable in the amount of \$400 per year, for a maximum of four years.

The William McCallum Memorial Scholarship will be awarded to students who show high probability of both responsible citizenship and academic and professional success. The basis for selecting winners is as follows: scholarship, character, leadership and community involvement.

Interested students should submit an application to the William McCallum Scholarship Committee, c/o the Registrar, Dawson College, 485 McGill Street, Montreal H2Y 2H4, before May 1. All official transcripts of credit other than those from Dawson College must be received before an application will be considered. Proof of admission to Law school must be provided by May 30.

**RIXON RAFTER SCHOLARSHIP FUND** — Following his death in 1963, Mr. Rixon Rafter of Arthur, Ontario, left a portion of his estate to the Ontario School for the Blind to be used to provide scholarships to assist blind persons continuing their education at the postsecondary level. Mr. Rafter was a graduate of the Ontario School for the Blind in Brantford and Queen's University in Kingston and for forty-five years publisher of the Arthur Enterprise News. The Rixon Rafter Scholarship Fund will make available scholarship awards of from \$500-\$1,000 to legally blind Canadians pursuing postsecondary studies with strong career aspirations. Because a limited number of awards are available each year, grants will be made based on the following criteria: financial need, academic achievement, and career goals. Application forms are available from C.N.I.B. Career Counselling Services. These forms must be completed in full and returned to: Chairman, The Rixon Rafter Scholarship Committee, The W. Ross MacDonald School, Brantford, Ontario, N3T 3J9, before July 31. A letter of support from your C.N.I.B. Career Counsellor must accompany your application. The Committee will make a decision on scholarships to be granted before September 1 and awards will be sent out during the month of September. Rixon Rafter expressed a

wish that financial assistance be made available to worthy blind Canadians who have the interest, ability and determination to seek higher education. The Rixon Rafter Scholarship Fund seeks to achieve this goal.

**THE RHODES SCHOLARSHIP** — The Rhodes Trustees offer annually for award in the Province of British Columbia one Rhodes Scholarship. This stipend consists of a direct payment to the University and the Scholar's College of approved fees plus a maintenance allowance paid directly to the Scholar. The sum provided should be sufficient to enable a Scholar to meet necessary expenses for term-time and vacations but those who can afford to supplement it to a modest extent from their own resources are advised to do so.

The Scholarship is tenable ordinarily for two years at Oxford University. A third year (at Oxford or elsewhere abroad) may be authorized in proper cases.

A candidate must be a Canadian citizen or person domiciled in Canada and unmarried. A Rhodes Scholarship is forfeited by marriage after election, or during a scholar's first year of residence. Thereafter a Rhodes Scholar may marry and retain the stipend if the Scholar is able to give appropriate assurance of support and accommodation for the spouse.

A candidate must be at least 19 but under 25 years of age by October 1, 1989.

A candidate may compete in a province in which he is eligible under either (a) or (b) below:

- (a) The province in which he is ordinarily resident. If he is ordinarily resident in the Northwest Territories he may compete in a province in which he is eligible under (b) or, if there is no such province, in Nova Scotia or New Brunswick.
- (b) The province in which his university study has taken place, provided that if he is ordinarily a resident outside Newfoundland he may not compete in Newfoundland.

In that section of the will in which he defined the general type of Scholar he desired, Mr. Rhodes mentioned four groups of qualities, the first two of which he considered most important:

1. Literary and scholastic attainments;
2. Qualities of truth, courage, devotion to duty, sympathy, kindness, unselfishness, and fellowship;
3. Exhibition of moral force of character and of instincts to lead and to take an interest in his fellows;
4. Physical vigour, as shown by fondness for and success in outdoor sports.

Some definite quality of distinction, whether in intellect or character, or both, is the most important requirement for a Rhodes Scholarship, and it is upon this that Committees will insist. Success in being elected to office in student organizations may or may not be evidence of leadership in the true sense of the word. Mr. Rhodes evidently regarded leadership as consisting of moral courage and an interest in one's fellow men quite as much as in the more aggressive qualities. Physical vigour is an essential qualification for a Rhodes Scholarship, but athletic prowess is of less importance than the moral qualities developed in playing outdoor games. Financial need does not give a special claim to a Scholarship. A candidate for a Scholarship is required to make application by October 25, 1988 and if elected, to go to Oxford in October 1989. Further information concerning the Scholarship and the opportunities for study at Oxford University may be obtained from Peter D. Fairey, 1300-999 West Hastings St., Vancouver, B.C., V6C 2W5. Uvic applicants must submit application forms to the Administrative Registrar by October 12, 1988.

**ROTARY FOUNDATION** — The newest educational activity of the Rotary Foundation. Undergraduate Scholarships are awarded to outstanding young men and women for one academic year of undergraduate study abroad.

A candidate for a 1988-89 Scholarship must be: unmarried; between the ages of 18 and 24 inclusive as of July 1, 1988, and have completed two years of undergraduate university level work but not have attained the bachelor's degree or equivalent at the time he begins his Scholarship year. He must be a citizen of the country in which his permanent residence and sponsoring Rotary club are located.

In this and all other programs of the Rotary Foundation, a Rotarian, a dependent of a Rotarian, a child, a stepchild, grandchild, brother or sister of a Rotarian, or any spouse thereof, is ineligible for an award.

An Undergraduate Scholarship covers the cost of round trip transportation between the Scholar's home and place of study, registration, tuition, laboratory and other school fees, necessary books and educational supplies, meals and lodging, incidental living costs, limited educational travel during the Scholarship year and, in specified instances, intensive language training in the country of study prior to the beginning of the regular academic year.

Awards may be made for study in any field, but not for independent or unsupervised research. Undergraduate Scholarships are awarded for one academic year of study in another country. They are not granted to students to continue studies already begun in a country. It is not expected or intended that an Undergraduate Scholarship will be used as part of a longer period of study abroad. In many cases it is not possible to obtain academic credit for work done during the Scholarship year. Each candidate should ascertain for himself, in advance, whether it will be possible to receive credit for courses taken or work completed during the year abroad.

Applications for an Undergraduate Scholarship must be made through a Rotary club in the district in which the applicant's permanent residence is located or the district in which is located the school at which he is studying at the time of his application. The sponsoring Rotary club will provide the necessary application forms and explanatory literature. Rotary clubs may obtain this material from their district governor or the secretariat of Rotary International in December of each year. Application forms must be completed and returned to the Rotary Club by March.

**ROYAL CANADIAN LEGION (PACIFIC COMMAND) BURSARY/SCHOLARSHIPS** — The Legion (Pacific Command), offers annually a number of awards for students proceeding from high school to university, and some awards to students entering second, third and fourth year. These bursary/scholarships are awarded on the basis of academic standing, financial need, and participation and achievement in student and community affairs. Preference is given to sons and daughters of deceased, disabled, or other veterans, but applications from other worthy students are also considered. Further information may be obtained from Royal Canadian Legion, 3026 Arbutus Street, Vancouver, B.C. V6J 3Z2. The deadline date for application is May 31.

**IRENE SAMUEL SCHOLARSHIP** — Scholarships of at least \$300 are awarded annually to people who are qualified to enter an accredited University in order to further their education in Teacher Training and/or Judaic Studies. Upon completion of their studies their intent must be to teach Hebrew and/or Judaic Studies in a Jewish School in Canada for a minimum of two years.

Candidates should have a good Jewish and general educational background and broad extracurricular activities and interests. Mature students returning to their studies or those wishing to upgrade their qualifications are also eligible. Financial need as well as academic achievement will be considered.

Further information and applications are available upon request from: NATIONAL COUNCIL OF JEWISH WOMEN OF CANADA, 1111 Finch Avenue West, Suite 401, Downsview, Ontario M3J 2E5.

**THE SHRUM, LIDDLE & HEBENTON ESSAY PRIZE IN LEGAL HISTORY** — An annual prize of \$1,000 will be awarded for an essay on a topic in legal history. The prize will be available to (i) undergraduate or graduate law students and (ii) recent law graduates of the Faculty of Law at either the University of Victoria or the University of British Columbia. Selection of the recipient will be made by a selection committee which reserves the right to withhold the prize if no suitable essay is submitted. The winning essay will be submitted for publication in an appropriate legal journal. Applicants must submit their essays to the Office of the Associate Dean, Faculty of Law, before June 1. The winner, if any, will be selected by July 1.

**THE SONS OF NORWAY SCHOLARSHIPS** — Three Scholarships of \$600 each are offered by Sons of Norway Foundations in Canada to students who have shown interest in Norwegian Culture, History of Language. They are open to students who show evidence of sound academic performance and financial need. The awards are tenable, at any recognized Junior College, Vocational Institute, or University in B.C. and can be for any study year. Forward application, not later than July 30, to Sons of Norway Foundation in Canada, No. 905-935 Marine Drive, West Vancouver, B.C. V7T 1A7.

**THE J.M. WARREN SCHOLARSHIP** — The British Columbia Foundation has established a Scholarship to honour Mr. Jack M. Warren in recognition of his many years of distinguished service as Administrator of the British Columbia Cancer Institute and as Comptroller to the British Columbia Cancer Foundation.

The Scholarship of \$2,000 will be offered annually to support advanced study or training in cancer treatment and control, including the administration of cancer programs.

Candidates should apply to the Bursary, Scholarship and Awards Committee, British Columbia Cancer Foundation, 2656 Heather Street, Vancouver, B.C. V5J 3J3, prior to December 1, setting out their plan of study and submitting a transcript of their academic record. Candidates must also submit the names, addresses and telephone numbers of two

individuals who are familiar with their academic or professional ability, and who have been asked to submit letters of recommendation directly to the Bursary, Scholarship and Awards Committee.

**THE ROYAL WESTMINSTER REGIMENT ASSOCIATION SCHOLARSHIP** — Two scholarships of \$250 each, the gift of the Royal Westminster Regiment Association, will be awarded annually to worthy and deserving students who are continuing their formal education beyond secondary school in recognized institutions of higher learning in any place within Canada or outside Canada. To be eligible, applicants must be direct descendants, male or female, of a member of the Royal Westminster Regiment Association, of a member of the Royal Westminster Regiment CA (M) or one of those battalions which the Royal Westminster Regiment perpetuates, i.e. the 47th, 104th or 131st. The scholarships are also open to applicants who are at the time of application serving members of the Royal Westminster Regiment. The applicants may be in their final year of secondary school or any year of postsecondary study, and may be resident in any place within Canada or outside Canada. The basis of the award will be academic standing in previous studies and need of financial assistance. The Application for Scholarship Form is obtainable from the Scholarship Committee, The Royal Westminster

Regiment Association, Box 854, New Westminster, B.C. The cut-off date for application is July 31.

**THE WOMAN'S INSTITUTE MEMORIAL SCHOLARSHIP IN HOME ECONOMICS** — A scholarship of \$250 will be awarded annually by the Woman's Institute of B.C. It is available to the daughter of a member of the Institute. The member must have a good standing for at least three years. Preference is given to a student registering at the University of British Columbia toward a degree in Home Economics. Application by letter from the Institute to the Secretary-Treasurer, Provincial Board, B.C. Woman's Institute, 545 Superior Street, Victoria, B.C., must be received before July 15.

**THE WOMAN'S INSTITUTE MEMORIAL SCHOLARSHIP IN AGRICULTURE** — A scholarship of \$250 will be awarded annually by the Woman's Institute of B.C. It is available to the son or daughter of a member of the Institute. The member must have been in good standing for at least three years. Preference is given to a student registering at the University of British Columbia toward a degree in Agriculture. Application by letter from the Institute to the Secretary-Treasurer, Provincial Board, B.C. Woman's Institute, 545 Superior Street, Victoria, B.C., must be received before July 15.

## SECTION 6

### AWARDS FOR GRADUATE STUDY

#### Awards Administered by the Faculty of Graduate Studies

The Faculty of Graduate Studies administers a number of fellowships and awards on behalf of a wide group of departments and granting agencies for students in graduate programs at the University of Victoria. Unless otherwise stated, all awards are made annually by the Graduate Faculty Awards Committee on the basis of recommendations from the appropriate departments.

#### FELLOWSHIPS

**General Regulations:** Unless otherwise stated in the terms of a specific graduate fellowship, the following regulations apply:

1. No duties are attached to these Fellowships.
2. Fellowships may be held for the first two years of a Master's program; the first three years of Ph.D. program following a Master's degree; and the first four years of a Ph.D. program following a bachelor's degree. Their renewal is subject to the student maintaining a cumulative GPA of 7.00 (A-) in all courses taken for credit in the Faculty of Graduate Studies.
3. Fellowship holders must be registered as full time students (as defined by Faculty regulations).
4. Fellowship holders may not hold another major award (e.g. from SSHRC, NSERC, MRC).
5. Fellowship holders may accept paid employment but this must not exceed 100 hours in any four month term.
6. Fellowship holders must normally have earned a cumulative GPA of at least 7.00 (A-) over the last 30 units of their undergraduate degree and any graduate level course work attempted.
7. Within one month after receipt of the notice of these Fellowships students must confirm that they intend to accept. If this is not done, the awards will be forfeited and reassigned.

#### UNIVERSITY OF VICTORIA FELLOWSHIPS:

A limited number of Special Fellowships, valued at \$2,500 in addition to the Master's or Doctoral Fellowship amount, will be awarded to exceptional full time students. These are awarded for one year only and no special application is required.

University of Victoria Fellowships of \$9,000 (Master's) and \$10,000 (Ph.D.) may be awarded by the Faculty of Graduate Studies to students of high academic standing registered full time in the Faculty as candidates or provisional candidates for a degree.

Application for the above should be made at the time of application for admission, in the space provided on the Application for Admission (Faculty of Graduate Studies). Applications must be complete by February 15 in order to be considered. All applicants who meet the eligibility criteria are encouraged to apply. Late applications will be considered if funds are available. New students (or students who have not been previously considered for a Fellowship) will be notified in writing of awards offered by approximately March 31. Returning students with Fellowships must make application for renewal by the end of the second week of April and will be notified of awards offered by May 31.

The University of Victoria offers annually to new and continuing students approximately 125 Fellowships of 12 months duration.

**CANADIAN PACIFIC FELLOWSHIPS:** \$25,000 has been provided by Canadian Pacific for outstanding students in Economics. This amount may be distributed as Fellowships if eligible students are available.

\* **THE KING-PLATT FELLOWSHIP:** Two Fellowships of \$12,000 may be awarded to graduate students in Biology, with preference given to students who work bears on the ecology of birds.

\* **THE AMELIA LEITH MEMORIAL FELLOWSHIP:** (Total Award \$8,000) — A Fellowship of \$7,500 may be awarded to a graduate student in Biology whose studies are in an area of horticultural significance. The Fellowship may be renewed for a second year in the case of a M.Sc. program, and for a third year in the case of a Ph.D. program. An allowance of \$500 for books, equipment, and travel assistance will be added to the award. If no candidate is eligible for a Fellowship, up to three scholarships of \$2,500 each may be offered to graduate students in Biology whose studies are of horticultural significance.

**E. BLAKE BROMLEY, ALVIN G. POETTCKER, KENNETH R. WILLIAMS GRADUATE FELLOWSHIPS:** Three Fellowships of \$10,000 each have been made available. Holders will be either registered full time students in the Faculty of Graduate Studies, or undertaking a period of intensive professional or academic upgrading after a minimum of three years' experience in the workplace. The course of study and related research thesis or project must involve some aspect of Canada's relations with the countries of the Pacific Rim. Awards will be made initially for one year. If progress is satisfactory, the Fellowships are renewable for a second year, and for a third year in the case of a Ph.D. program only. Applications must be made directly to the Faculty of Graduate Studies.

**VICTORIA CANADA-CHINA FRIENDSHIP ASSOCIATION FELLOWSHIP:** — This award will be made to a graduate student from the Peoples' Republic of China who has met all criteria for a regular University Fellowship. It may be renewable for one additional year. Selection of the recipient will be made by the Graduate Faculty Awards Committee on the recommendation of a review committee which will consist of two representatives of the Victoria Canada-China Friendship Association and a representative appointed by the Dean of the Faculty of Graduate Studies. Applicants should contact the Victoria Canada-China Friendship Association for specific terms of reference. This award will not be available in 1988-89.

#### Adjusted Fellowships

Donors have provided a number of additional Awards as supplementary grants to full time students who hold either University of Victoria Fellowships or external Scholarships (e.g. from NSERC, SSHRC).

\* **THE FLORA HAMILTON BURNS FELLOWSHIP:** — An additional grant of approximately \$500 donated by Flora Hamilton Burns in memory of Emily Carr may be awarded to a highly qualified student in History in Art.

\* Administered by the University of Victoria Foundation.

\* **THE LEWIS J. CLARK FELLOWSHIPS:** — Two additional awards of \$1,000 may be granted, one to a graduate student in Biology, with preference to a student in Botany, and one to a graduate student in Chemistry. Selection of the recipients will be made on the recommendation of the Departments of Biology and Chemistry respectively. Holders of Natural Sciences and Engineering Research Council Postgraduate Scholarships may also receive this award, in which case \$1,000 will be added to the NSERC Scholarship.

\* **THE W. GORDON FIELDS MEMORIAL FELLOWSHIP:** — Awarded in memory of a former Head of the Biology Department. An additional grant of \$1,000 awarded to a graduate student in Marine Biology who already holds a major fellowship and who has shown an aptitude for teaching. If no candidate is eligible for a Fellowship or NSERC Scholarship, one or more scholarships valued between \$500 and \$1,000 may be awarded.

\* **THE RAY HADFIELD MEMORIAL FELLOWSHIP:** — A fellowship of approximately \$2,500 may be awarded to a graduate student of Biochemistry for study in the field of immunology, immunochemistry, and protein chemistry, especially as these bear on human conditions such as rheumatic diseases. Selection of the recipient will be made by the Graduate Faculty Awards Committee on the recommendation of the Ray Hadfield Arthritis Research Fellowship Committee, which will consist of two faculty members of the Department of Biochemistry and Microbiology appointed by the Dean of Graduate Studies and two members appointed by the Arthritis Society, B.C. Division, Victoria Branch. The student must be eligible for a University of Victoria Graduate Fellowship.

\* **THE CHARLES S. HUMPHREY GRADUATE STUDENT AWARDS:** — Additional awards, each of \$2,500, may be granted to highly qualified candidates in the Divisions of Science and Engineering.

\* **THE SAM AND JUNE MACEY GRADUATE STUDENT AWARD:** — An additional grant of \$1,000 will be awarded annually to the best first year Masters student in English or History.

\* **THE M.C. MELBURN AWARDS:** — Two additional grants of \$700 may be awarded to graduate students in Biology, with preference to students in Botany. If no candidate is eligible for a Fellowship or NSERC Scholarship, a single scholarship of \$1400 may be awarded to a student in Botany.

\* **THE R.M. PEARCE MEMORIAL FELLOWSHIP:** — The R.M. Pearce Memorial Fellowship, valued at approximately \$1500, will be awarded annually to a highly qualified full time graduate student who holds a major award such as an NSERC Scholarship or UVic Fellowship and is entering, or is enrolled in, a Master's or Ph.D. degree program in the Department of Physics at the University of Victoria. Application should be made to the Graduate Committee, Department of Physics, University of Victoria. Selection will be based upon the recommendation of this Committee to the Graduate Faculty Awards Committee.

\* **THE R.M. PETRIE MEMORIAL FELLOWSHIP:** — The R.M. Petrie Memorial Fellowship is awarded annually to one or more highly qualified students who wish to work toward the M.Sc. or Ph.D. degree in Astronomy at the University of Victoria. The Fellowship may be held concurrently with a University of Victoria Fellowship, in which case its value will be about \$2500, or with an NSERC Postgraduate Scholarship, when it will be valued at \$1000. If progress is satisfactory, it may be renewed for a second year, and for a third year in the case of a Ph.D. program. Students from outside Victoria may be entitled to travel assistance to take up the R.M. Petrie Fellowship at the University. Selection of the recipients will be made by the Graduate Faculty Awards Committee on the recommendation of the Petrie Memorial Fellowship Committee to the Department of Physics Graduate Committee.

\* **THE MRS. ANNIE GRESKIW GRADUATE AWARD:** — An award is made annually to a highly qualified Master's or Doctoral student doing thesis research on a health related subject. The award is valued at \$2,500 and normally is held in conjunction with a University of Victoria Graduate Fellowship or a Natural Sciences & Engineering Research Council Postgraduate Scholarship.

**THE MACDONELL GRADUATE AWARD IN PHYSICS:** — the MacDonell Graduate Award in Physics, valued at \$2,000, is granted annually to a highly qualified student commencing a full time program of graduate study in Physics and is tenable for one year.

#### SCHOLARSHIPS, AWARDS, BURSARIES AND PRIZES

These are normally awarded annually unless otherwise specified. It is not necessary to hold a major Fellowship or Scholarship in order to qualify for the awards under this heading. Selections are made by the Faculty of Graduate Studies Awards Committee on the recommendation of the relevant department/s.

\* **THE RANDY BAKER MEMORIAL SCHOLARSHIP** — An award of \$275 is made to a graduate student with high standing in Biology, with an emphasis in Marine Biology.

\* **THE WILLIAM G. BENDER SCHOLARSHIP** — A single Scholarship of \$1,000 or two of \$500 may be awarded to an outstanding student in the Master of Public Administration program who has achieved high standing in Personnel Management and/or Industrial Relations courses.

\* **THE B.C. FRIENDS OF SCHIZOPHRENICS, VICTORIA BRANCH** — An annual award of \$500 to be made to a graduate student participating in advanced practicum studies in clinical diagnosis and treatment (with an emphasis on childhood schizophrenia) at the Jack Ledger House Child and Adolescent Psychiatric Unit of the Arbutus Society for Children. The award is to be made on recommendation of the Department of Psychology to the Faculty of Graduate Studies Awards Committee.

**CANADIAN PACIFIC SCHOLARSHIPS** — \$25,000 has been provided by Canadian Pacific for outstanding students in Economics (see Fellowships). At the discretion of the Department of Economics, this amount may be awarded as Scholarships of \$3,000 - \$5,000.

\* **THE SINCLAIR FARRIS AWARD** — A Scholarship of \$400 may be awarded to an undergraduate or graduate student in Biology for interest and achievement of excellence in the field of microtechnique. The award was established to recognize Sinclair Farris who worked with the Canadian Forestry Services (Environment Canada) for 38 years, specializing in microtechnique. In the case of a graduate student, selection will be made by the Graduate Faculty Awards Committee on the recommendation of the Department of Biology.

\* **GRADUATE STUDENTS SOCIETY BURSARIES** — Awards of \$300, the gift of the Graduate Students Society, are to be made annually to three full time graduate students in Humanities and/or Social Sciences (as described by the Social Sciences and Humanities Research Council). The Bursaries will be based firstly on the financial need of those eligible and secondly on their academic standing. Selection will be made by the Graduate Faculty Awards Committee in consultation with the Executive of the Graduate Students Society. Applications should be made to the Dean of Graduate Studies.

**THE HOLIFF FAMILY MATURE STUDENT SCHOLARSHIP** — A Scholarship of \$1,000 may be awarded to a full time student, aged 40 years or older, who is in the first year of the M.A. program in English, History, or Philosophy. The recipient must have graduated with an Honours degree from the Departments of English, History, or Philosophy at the University of Victoria, with a GPA of 6.50 or better in the final year of full time study. The recipient may not hold a University of Victoria Fellowship or a major external Fellowship. Selection will be made by the Graduate Faculty Awards Committee on the recommendation of the Dean of Humanities.

**THE LEON J. LADNER B.C. HISTORY SCHOLARSHIP** — A Scholarship of \$300 may be awarded for the best graduate thesis on the History of British Columbia.

\* **THE KING-PLATT MEMORIAL AWARDS:** (See also under Fellowships) — Up to five awards of \$3,000 each may be awarded annually to graduate students enrolled in a M.Sc. or Ph.D. program in the Department of Biology whose work is related to the ecology of birds.

\* **THE MARTLET CHAPTER IODE GRADUATE SCHOLARSHIP FOR WOMEN** — A Scholarship to the value of \$300 will be awarded to a woman student with high standing who is entering the second year of a Master's program. Application should be made directly to the Dean of Graduate Studies.

\* **THE MILLEN GRADUATE AWARD** — An award of \$3,000 may be made annually to a student enrolling in a M.F.A. or M.A. program in Creative Writing. Selection of the candidate will be based on academic standing acceptable to the Graduate Faculty and an assessment by the Department of Creative Writing of

a. an original lyric poem, beautiful in form and content, or  
b. a prose original, fact or fiction, of not more than thirty-five hundred words, which is beautiful in form and content.

Submission of original writings must be made according to the format and entry dates prescribed by the Department of Creative Writing. Students holding this award may apply for a University of Victoria Graduate Fellowship or Scholarship.

\* **THE G. NEIL PERRY AWARD IN PUBLIC ADMINISTRATION** — An award of \$75 will be granted to a student whose Administration 598 Report is judged to be the best.

\* Administered by the University of Victoria Foundation.

**THE PHILLIPS, HAGER AND NORTH LTD. GRADUATE BURSARY** — A bursary of \$1,500, the gift of Phillips, Hager and North Ltd., may be awarded to a graduate student in Economics. The bursary will be based firstly on the financial circumstances of those eligible and secondly on their academic standing. The total amount may be divided into two awards.

\* **MAIRI RIDDEL MEMORIAL BOOK PRIZE** — A book prize of \$100 is awarded to a graduate student in the English Department for the best seminar essay.

\* **DAVID STEWART BOOK PRIZE FOR COUNSELLING** — A book prize of \$65 is awarded to the most promising graduate student in the Counselling Psychology in Education program, as evidenced by papers published or presented at professional conferences. Selection will be made by the Awards Committee of the Faculty of Graduate Studies on the recommendation of the Graduate Adviser, Department of Psychological Foundations in Education.

**THE VICTORIA REGIONAL GROUP OF THE INSTITUTE OF PUBLIC ADMINISTRATION OF CANADA (IPAC) SCHOLARSHIP** — A Scholarship of \$500 may be awarded to the most outstanding student having completed the first year of full time study towards the M.P.A. degree and continuing in the second year of full time studies in the School of Public Administration.

\* **THE SCHOOL OF PHYSICAL EDUCATION GRADUATE SCHOLARSHIP** — \$300 will be awarded to a M.Ed or M.A. physical education student of good academic standing. The award will normally be given to a second year graduate student and will be based on the student's academic performance and active involvement with the School of Physical Education during the preceding year. This Scholarship will not normally be given to students who are currently holding Fellowships or other major awards.

\* **THE SCHOOL OF PUBLIC ADMINISTRATION SCHOLARSHIPS** — An amount of \$100 will be awarded annually to highly qualified candidates in the School of Public Administration.

\* **THE ARTHUR LESTER BENTON BURSARY** — A bursary of \$500 may be awarded to a graduate student in Psychology in the field of neuropsychology.

#### SPECIAL RESEARCH AWARDS

**B.C. GRADUATE RESEARCH ENGINEERING AND TECHNOLOGY AWARDS** — The G.R.E.A.T. awards are cooperative awards to encourage research collaboration between universities, business and industry in British Columbia. Available to help support graduate students at B.C. universities in Applied and Natural Sciences who are Canadian citizens. All B.C. organizations, public and private, are eligible to participate, provided that research can be arranged which is acceptable to both the organization and the University. G.R.E.A.T. awards granted in 1988 may be held in conjunction with other major awards such as NSERC Postgraduate Scholarships. Valued at \$20,000 less the value of all other Scholarships held concurrently, up to a maximum G.R.E.A.T. award of \$14,000 per year.

**B.C. SCIENCE & TECHNOLOGY AWARDS FOR RETURNING STUDENTS** — The S.T.A.R.S. awards are competitive Scholarships to enable mature students (minimum 3 years related experience since graduation) to return to a B.C. university for a graduate degree in Science or Engineering. Recipients will also maintain a collaborative research arrangement with an industrial organization in B.C. Successful applicants will receive \$25,000 per year (1988/89). Three S.T.A.R.S. awards will be awarded. Applicants must be Canadian citizens or permanent residents. Application forms are available in the Graduate Dean's Office for both the G.R.E.A.T. and S.T.A.R.S. awards, and completed forms must be returned to that Office no later than January 15.

**THE SARA SPENCER FOUNDATION RESEARCH AWARDS IN APPLIED SOCIAL SCIENCE** — These awards are intended to encourage Social Scientists in cultural, environmental, and social studies, with particular reference to the Capital Regional District. The proceeds of a fund established by the Sara Spencer Foundation and administered by the University of Victoria Foundation will be used to provide individual awards in amounts up to a maximum of \$3,000 to superior students, to assist with the costs of research in the applied areas of the Social Sciences. Awards will be made by the Awards Committee of the Faculty of Graduate Studies on the recommendation of the Sara Spencer Committee which is composed of members from the Social Sciences Department.

#### ASSISTANTSHIPS

Graduate students may make application, through the Department concerned, for paid employment as Academic Assistant, Research Assis-

tant, Scientific Assistant, Laboratory Instructor. Such employment is negotiated through the Department concerned, not through the Faculty of Graduate Studies, at rates of pay determined by the University. No full time graduate student may be gainfully employed, however, for more than 150 hours in any four month term. Students appointed as Teaching and/or Research Assistants may also be recommended by their departments to the Faculty of Graduate Studies for a Supplement.

**Awards for which Application must be made to the Administrative Registrar:**

\* **THE SENATOR WILLIAM JOHN MACDONALD TRAVELLING SCHOLARSHIP** — This award was established by Mrs. T.G. Keir in memory of her grandfather, Senator Macdonald.

The scholarship is awarded every second year, beginning in 1984, to an outstanding student who has received an undergraduate degree from the University of Victoria since the last competition and who is planning to undertake a graduate degree in Arts, Science or Fine Arts at a Scottish university. If there are not suitable candidates wishing to study at a Scottish university, then applicants wishing to attend any United Kingdom university will be considered.

The award will have a value of \$11,000, and will be payable in two \$5,500 installments; one for each of the first two years of the student's graduate program.

Application packages are available from the Secretary of the Senate Committee on Awards, Office of the Administrative Registrar, University Centre. The application package includes three referee forms to be completed by individuals who are familiar with the applicant's work. The application form and the referee forms must all be submitted by November 30.

The selection of the recipient will be made by a Committee, appointed by the President, which is composed of a Dean of one of the Faculties, an individual of professional rank and the Chairman of the Senate Committee on Awards. Decisions reached by the Committee are final.

Awards are made after the results of the final examinations for the relevant winter session have been determined.

#### Awards Administered by Government and Other Organizations

There are many other Graduate Awards, not administered by the University of Victoria. Notices of these are posted in the Faculty of Graduate Studies Office and circulated to departmental offices. Information may also be obtained from the catalogue "Canadian Directory of Awards for Graduate Study" which can be found in the Reference Division of the Library under REF/LB2339/C3 C33. Since these awards are subject to constant change, prospective applicants are advised to obtain further details from the Faculty of Graduate Studies Office, or directly from the administering agency. A brief description of some of the major awards follows:

#### SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL

##### *Special M.A. Scholarships and The Queen's Fellowships*

*Field of Study:* Various areas of the humanities or social sciences.

*Eligibility:* Canadian citizens in the final year of an honours B.A. program, with first class standing for study at a Canadian University.

*Value:* \$11,340 for 12 months. The Queen's Fellowship also includes tuition fees.

Information and application forms can be obtained from the Office of the Dean of Graduate Studies.

*Deadline:* December 1.

##### *Doctoral Fellowships*

*Field of Study:* Various areas of the humanities or social sciences.

*Eligibility:* Canadian citizens who, by the time of taking up the award, will have completed

- a. one year of doctoral study, or its equivalent; and
- b. a Master's degree, and will be pursuing full time studies leading to a Ph.D. or equivalent.

*Value:* Up to \$12,000. *Deadline:* November 20.

Information and applications for these awards are available from the Office of the Dean of Graduate Studies. Application for Post Doctoral awards are available from the Office of Research Administration.

**NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA** — Postgraduate awards and a limited number of Fellowships are available in the fields of science, including physical geography and experimental psychology. Candidates must be Canadian citizens or landed immigrants resident in Canada. These Scholarships and Fellowships are awarded on the basis of high scholastic achievement and evidence of skill at research.

\* Administered by the University of Victoria Foundation.

**Postgraduate Scholarships**

Postgraduate scholarships are valued at \$12,500 or \$13,500 for 12 months.

Additional information on NSERC awards may be obtained from the Office of the Dean of Graduate Studies. Application forms are made available through Departmental Offices in early October. The deadline for return of completed applications to the Chairman of the appropriate Department is usually early November.

**ASSOCIATION OF UNIVERSITIES AND COLLEGES OF CANADA**

— The Association of Universities and Colleges of Canada administers a number of national and international programs on behalf of Canadian and foreign donors. A comprehensive list of awards, including those offered by foreign governments for study abroad, is available from the Association and many are posted in the Office of the Dean of Graduate Studies.

*General Eligibility:* Unless otherwise indicated, these awards are offered to graduates of a Canadian university or college which is a member or affiliated to a member of the A.U.C.C., and are tenable at a similar institution.

Conditions of awards, closing dates and other factors vary, and those meeting the general eligibility requirements should write to the Director of Awards, A.U.C.C., 151 Slater Street, Ottawa, Ontario K1P 5N1, for more complete information and application forms.

**BRITISH COLUMBIA HERITAGE TRUST SCHOLARSHIPS** — The British Columbia Heritage Trust offers three Scholarships annually, in the amount of \$7,500 each:

Charles E. Borden Scholarship, for the study of B.C. archaeology;  
Peter N. Cotton Scholarship, for the study of architectural conservation or the architectural history of British Columbia;  
Willard E. Ireland Scholarship, for the study of B.C. history and archival studies.

Letters of application and application material must be submitted by December 31 to:

The Secretary  
British Columbia Heritage Trust  
Parliament Buildings  
Victoria, B.C. V8V 1X4

Further information concerning these awards may be obtained from the above address or from the office of the Dean of Graduate Studies.

**CANADIAN FEDERATION OF UNIVERSITY WOMEN FELLOWSHIPS***Margaret McWilliams Travelling Fellowship*

One Fellowship awarded annually to a predoctoral woman scholar in any field of study.

*Value:* \$8,000. Doctoral program must be well advanced and the candidate must plan to continue the work outside Canada; for residents of Canada who may be studying elsewhere at the time of application.

*Professional Fellowship*

One or two Fellowships are awarded for any woman who wishes:  
a. to spend a year at an accredited Library School, School of Social Work or similar professional school, or  
b. to embark on a program leading to an advanced degree after some years of experience in a particular field, or a lapse of time away from formal study.

Applicant must be a Canadian citizen holding a degree from a Canadian university.

*Value:* \$4,000

Further information about these two awards may be obtained from the Canadian Federation of University Women, 55 Parkdale Avenue, Ottawa, Ont., K1Y 1E5.

**CANADA MORTGAGE AND HOUSING FELLOWSHIPS** — A large number of Fellowships are awarded annually for study in urban and regional planning and related fields, in approved Canadian universities and elsewhere. Candidates must be Canadian citizens or landed immigrants in Canada for not less than 18 months when applying.

*Value:* up to \$11,325. Renewable up to three times.

Application forms are available from the Office of the Dean of Graduate Studies or the Administrative Officer, Scholarships, Canada Mortgage and Housing Corporation, Ottawa, Ontario K1A 0P7, and must be submitted through the appropriate department of the university in which the student proposes to enroll. Applications for study at Canadian universities must be sent to CMHC by March 15; applications should be submitted to the University, therefore, well before the end of February.

**COMMONWEALTH SCHOLARSHIP AND FELLOWSHIP PLAN** — Under a Plan drawn up at a conference in Oxford, in 1959, each partici-

pating country of the Commonwealth offers a number of scholarships to students from other Commonwealth countries. These scholarships are mainly for graduate study and are tenable in the country making the offer. Awards are normally for two years and cover travel costs, tuition fees, other university fees and a living allowance.

Details may be obtained from the relevant government office in the applicant's own country, or from the Canadian Commonwealth Scholarship and Fellowship Committee, c/o Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario K1P 5N1.

**CANADIAN INTERNATIONAL DEVELOPMENT AGENCY AWARDS**

CIDA offers scholarships to qualified Canadians to enhance their professional competence in any aspect of international development assistance. Applications involve the proposal of a program related to some specific developmental need or problem providing for a substantial period of work, observation, or research in a developing country. The program may be up to two years duration, the award for the second year being dependent on satisfactory review. Only Canadian citizens are eligible, and must clearly indicate their intention to pursue a career in the international development field. The awards, in a maximum amount of \$15,000 per year; are tenable in Canada and/or in developing countries.

Applications should be received by CIDA by January 31. Forms and further details may be obtained from Canadian International Development Agency, Scholarship Program for Canadians, Human Resources Division, 122 Bank St., Ottawa, Ontario K1A 0G4.

**DEPARTMENT OF NATIONAL DEFENCE SCHOLARSHIPS AND POST DOCTORAL FELLOWSHIPS**

— The Department of National Defence offers Scholarships and Post Doctoral Fellowships for military and strategic studies of relevance to Canada. Applicants must be Canadian citizens. Candidates for a Fellowship must hold a Ph.D. degree, or equivalent, and candidates for a Scholarship must hold an Honour's Bachelor's degree, or its equivalent.

*Value:* Fellowships \$10,000, Scholarships \$7,500.

Application forms are available from the office of the Dean of Graduate Studies and must be submitted by February 1.

**IODE SCHOLARSHIPS** — Seven to nine scholarships are offered annually to students who, at the time of applying hold, or are currently in the final year of studies leading to a Master's degree, and are not more than 35 years of age on December 31 of the year in which the award would be received. Candidates must be Canadian citizens.

*Value:* \$8,500 for study in Canada; \$12,000 for study overseas within the Commonwealth. If warranted by the student's program, one renewal may be considered in the amount of \$4,000 in Canada and \$6,000 overseas.

Information and application forms are available from the Office of the Dean of Graduate Studies. Deadline for receipt of applications is December 1.

**NATIONAL INSTITUTE ON MENTAL RETARDATION** — The National Institute on Mental Retardation offers Research Grants of up to \$8,000 and Bursaries of up to \$1,500 to graduate students doing research in fields relating to human services and mental retardation. Candidates must be Canadian citizens or landed immigrants, studying at Canadian universities.

*Research Grants:* Application forms and information are available from the Office of the Dean of Graduate Studies or from The Secretary, Bursaries and Grants Adjudicating Committee, National Institute on Mental Retardation, Kinsmen NIMR Building, York University Campus, 4700 Keele Street, Downsview, Ont., M3J 1P3. Deadline: April 30.

*Bursaries:* Application should be made, in the form of an outline of intended or current area of study; a proposal of research plan; letters of reference and transcripts, to B.C. Association for the Mentally Retarded, Airport Square, No. 155, 1200 West 73rd Ave., Vancouver, B.C., V6P 6G5. Deadline: March 30.

**MONSANTO CANADA SCHOLARSHIP IN WEED SCIENCE** — A \$1,800 scholarship is open to any graduate student who has completed (by September 1) one or more years of graduate studies toward an M.Sc. or Ph.D. in weed research. The thesis project must be on weed control, herbicide chemistry, application technology, weed physiology, weed biology or weed ecology.

It is tenable at a University in Western Canada and will be awarded on the basis of academic performance at the graduate and undergraduate level and demonstrated aptitude and experience in conducting research at the graduate level. Publications, presentation, communication skills and related extension experiences will be considered.

Letters of application should include a brief outline of the research project and its significance to weed control in western agriculture. Also

include a transcript of marks, curriculum vitae and two letters of reference (one must be from the project supervisor). Send, before September 1, to Dr. J.H. Hunter, Monsanto Scholarship, Agriculture Canada Research Station, Box 440, Regina, Saskatchewan, S4P 3A2.

**QUEEN ELIZABETH II BRITISH COLUMBIA CENTENNIAL SCHOLARSHIP** — The purpose of this Scholarship is to enable selected British Columbians to take further studies at approved universities in the United Kingdom.

*Number and Value:* One Scholarship each year of \$10,000 renewable.

*Eligibility:* A graduate of the University of Victoria, University of British Columbia or Simon Fraser University:

- a. who has attended any British Columbia public university for a minimum of 2 years;
- b. whose ordinary domicile, home or residence is in B.C.;
- c. who is a Canadian citizen.

Applications are available in the Office of the Dean of Graduate Studies. All inquiries, applications and supporting documents must be forwarded directly to The Deputy Provincial Secretary, Legislative Building, Victoria, B.C., by March 15.

**THE J.H. STEWART REID MEMORIAL FELLOWSHIP** — Open to graduate students in any field at a Canadian University, who are Canadian citizens.

*Value:* \$5,000, renewable, *Deadline:* February 28.

Information and forms available from: Awards Officer, Canadian Association of University Teachers, 75 Albert St., Suite 1001, Ottawa, Ontario, K1P 5E7.

**ROTARY GRADUATE FELLOWSHIPS** — Graduate Fellowships may be awarded for any field of study. The purpose of the awards is to promote understanding and friendly relations between peoples of different nations. Candidates must have both an outstanding academic record and the potential to become high quality ambassadors of good will. Applicants must be between the ages of 20 and 28, inclusive, as of the application deadline of March 1, unless that age period included military service, in which case the upper age limit may be waived. Candidates must hold a bachelor's degree, or its equivalent, prior to the commencement of the Fellowship year.

The Fellowship is calculated on the basis of air fare between the recipient's residence and place of study, incidental travel expenses, tuition fees, essential books and supplies, and room and board, plus incidental living expenses.

Application for a Rotary Foundation Graduate Fellowship must be made through a Rotary Club in the district of the applicant's legal or permanent residence, or in the district in which he is studying at the time of application. A period of 18 months is required for processing. Further details may be obtained from the Office of the Dean of Graduate Studies.

# UNIVERSITY OF VICTORIA

## VISITOR

The Honourable Robert G. Rogers, LL.D., Lieutenant Governor of the Province of British Columbia

## CHANCELLOR

William C. Gibson, B.A., M.Sc., M.D., D.Phil., F.R.C.P.

## PRESIDENT AND VICE CHANCELLOR

Howard E. Petch, B.Sc., M.Sc., Ph.D., D.Sc., LL.D., F.R.S.C.

## VICE PRESIDENT, ACADEMIC

F. Murray Fraser, Q.C., B.A., LL.B., LL.M. (to June 30, 1988)

## VICE PRESIDENT, ADMINISTRATION

J. Trevor Matthews, B.A., M.B.A.

## VICE PRESIDENT, FINANCE

Robert W. McQueen, B.Com., C.A., Bursar

## OFFICERS OF CONVOCATION

William C. Gibson, B.A., M.Sc., M.D., D.Phil., F.R.C.P., Chancellor (Chairman, ex officio)

R. Ferry, B.A., Registrar (Secretary, ex officio)

## BOARD OF GOVERNORS

### Ex Officio Members:

William C. Gibson, B.A., M.Sc., M.D., D.Phil., F.R.C.P., Chancellor

Howard E. Petch, B.Sc., M.Sc., Ph.D., D.Sc., LL.D., F.R.S.C., President

### Members Appointed by the Lieutenant Governor in Council:

David Brousson, B.A.Sc. Term expires September 1990

John Bruk, B.Com., LL.B. Term expires April 1990

John H. Erb, K.St.J. Term expires September 1990

Susan M. Irvine, B.A. Term expires February 1988

Robert Jawl, B.Com. Term expires July 1990

Miriam A. Lancaster, B.A., M.A., A.R.C.T., R.M.T. Term expires July 1990

Vincent P. Reilly, Q.C., M.A., LL.B. Term expires February 1988

Ian H. Stewart, Q.C., B.A., LL.B. (Chairman). Term expires July 1990

### Members Elected by the Faculty Members:

Alexander McAuley, B.Sc., Ph.D., D.Sc., C.Chem., A.R.I.C. Term expires May 1990

John Money, B.A., M.A., Ph.D. Term expires May 1990

### Members Elected by Student Association:

Ronald N. Dickson, B.A. Term expires April 1988

David Tindall, B.A. Term expires April 1988

### Member Elected by Employees:

Terry W. Wiley. Term expires May 1990

### Secretary:

R. Ferry, B.A.

## SENATE

### Ex Officio Members:

William C. Gibson, B.A., M.Sc., M.D., D.Phil., F.R.C.P., Chancellor

Howard E. Petch, B.Sc., M.Sc., Ph.D., D.Sc., LL.D., F.R.S.C., President (Chairman)

(Appointment pending), Vice President, Academic

Edward I. Berry, A.B., M.A. Ph.D., Dean, Faculty of Arts and Science

Louis D. Costa, A.B., M.A., Ph.D., Dean of Social Sciences, Faculty of Arts and Science

Alastair T. Matheson, B.A., M.Sc., Ph.D., F.R.S.C., Dean of Science, Faculty of Arts and Science

Robert H. Fowler, B.A., M.A., Ph.D., Dean, Faculty of Education

Eric G. Manning, B.Sc., M.Sc., Ph.D., Dean, Faculty of Engineering

S. Anthony Welch, B.A., M.A., Ph.D., Dean, Faculty of Fine Arts

Alexander McAuley, B.Sc., Ph.D., D.Sc., C.Chem., A.R.I.C., Dean, Faculty of Graduate Studies

Brian Wharf, B.A., B.S.W., Ph.D., Dean, Faculty of Human and Social Development

William A.W. Neilson, B. Com., LL.B., LL.M., Dean, Faculty of Law

D. Gordon Thompson, B.Sc., M.A., Ph.D., Director, University Extension and Community Relations

(Appointment pending) University Librarian

### Elected by the Individual Faculties:

#### Arts and Science:

Paul M. Baker, B.A., M.A., Ph.D. Term expires June 30, 1989

Constance M. Rooke, B.A., M.A., Ph.D. Term expires June 30, 1990

#### Education:

R. Anne McLaughlin, B.Com., M.S. Term expires June 30, 1989

Beverly A. Timmons, B.A., M.S., D.Ed. Term expires June 30, 1990

#### Engineering:

A. Antoniou, B.Sc., Ph.D., F.I.E.E.E., F.I.E.E., P.Eng., C.Eng. Term expires June 30, 1989

Warren D. Little, B.A.Sc., M.A.Sc., Ph.D., P.Eng. Term expires June 30, 1990

#### Fine Arts:

Giles Hogya, B.A., M.A., Ph.D. Term expires June 30, 1990

William D. Valgardson, B.A., B.Ed., M.F.A. Term expires June 30, 1989

#### Graduate Studies:

Ronald A. Hoppe, B.A., M.A., Ph.D. Term expires June 30, 1989

Charles E. Picciotto, A.B., M.A., Ph.D. Term expires June 30, 1990

#### Human and Social Development:

J. Isobel Dawson, B.Sc.N., M.Sc.N., M.A., Ph.D. Term expires June 30, 1989

Alan R. Pence, B.A., M.S., Ph.D. Term expires June 30, 1989

#### Law:

Robert G. Howell, L.L.B., LL.M. Term expires June 30, 1990

Terry J. Wuester, B.A., M.A., J.D., LL.B., LL.M. Term expires June 30, 1989

### Members Elected by the Faculty Members:

J. Anthony Burke, A.B., A.M., Ph.D. Term expires June 30, 1988

George Corwin, B.S., M.A., Ph.D. Term expires June 30, 1990

William R. Gordon, B.A., M.A., Ph.D. Term expires June 30, 1990

Norma I. Mickelson, B.Ed., M.A., Ph.D. Term expires June 30, 1988

Reginald H. Mitchell, B.A., M.A., Ph.D. Term expires June 30, 1988

Gerald A. Poulton, B.A., Ph.D. Term expires June 30, 1989

John A. Schofield, B.A., M.B.A., M.A., Ph.D. Term expires June 30, 1988

Jennifer R. Waelti-Walters, B.A., L.ès.L., Ph.D. Term expires June 30, 1989

T. Rennie Warburton, B.A., Ph.D. Term expires June 30, 1990

Wesley T. Wooley, A.B., A.M., Ph.D. Term expires June 30, 1989

### Members Elected by the Student Association:

#### Full Time Students (Term expires April 30, 1988)

Paul C. Beauchesne

Genga Mutiah

Benjamin Dorman, B.A., M.Sc.

Sheila A. O'Hara

Colin W. Hanson, B.A.

Duane K. Seibel

Najeeb Hassan, B.A.

Bernard D. von Schulmann

Michael J. Kirkwood, B.A.

Robert J. Wood

Daniel P. Marshall

#### Part Time Student:

R. Bruce Hawkes, B.Sc. Term expires April 30, 1989

**Members Elected by the Convocation** (Term expires December 31, 1990)

Pinder K. Cheema, B.A., Dip.Ed., LL.B.  
 Paula DeBeck, B.A.  
 Elizabeth M. Hanan, LL.B.  
 Norma L. McAllister, B.A.

**Member Elected by the Professional Librarians:**

Donald J. White, B.A., M.L.S., M.A. Term expires June 30, 1988

**Members Appointed by the Lieutenant Governor in Council:**

Barbara G. Corry, R.T., B.Sc., M.Sc. Term expires November 30, 1984  
 Patricia K. Johnston, B.A., M.D. Term expires December 15, 1984  
 Jack W.Y. Lee, B.Com. Term expires December 18, 1987  
 Pamela A. Murray, Q.C., B.A., LL.B. Term expires December 18, 1987

**Secretary of Senate (ex officio):**

R. Ferry, B.A., Registrar

**UNIVERSITY OF VICTORIA FOUNDATION**

**Board of Directors:**

S. Joseph Cunliffe, B.A.Sc., PEng., Hon. LL.D. (Chairman). Term expires December 31, 1987

Herbert P.R. Brown. Term expires December 31, 1987

Joyce G. Clearihue, M.D., C.M., F.R.C.P.(C). Term expires December 31, 1987

Justin V. Harbord, Hon. LL.D. Term expires December 31, 1987

Robert W. McQueen, B.Com, C.A. (ex officio) (Treasurer)

Donald W. Munro. Term expires December 31, 1988

Howard E. Petch, B.Sc., M.Sc., Ph.D., D.Sc., LL.D., F.R.S.C. (ex officio)

Colin P. Rutherford. Term expires December 31, 1988

Hugh R. Stephen, Hon. LL.D., Term expires December 31, 1988

Arthur R. Steele. Term expires December 31, 1988

**Secretary:**

Floyd A. Fairclough

**UNIVERSITY OFFICES**

**OFFICE OF THE PRESIDENT**

Howard E. Petch, B.Sc., M.Sc. (McMaster), Ph.D. (Brit. Col.), D.Sc. (McMaster), LL.D. (Waterloo), F.R.S.C., President and Vice Chancellor.

James E. Currie, B.Com. (Brit. Col.), M.B.A. (McMaster), Executive Assistant to the President

Kayla Stevenson, B.A. (W. Michigan), Special Assistant to the President, Fund Raising

Peter J. van der Leeden, Dip.S.W., Assistant to the President (Staff Relations)

**Institutional Analysis:**

James E. Currie, B.Com. (Brit. Col.), M.B.A. (McMaster), Director  
 Charles Gallagher, B.S. (Columbia), M.A. (New School for Social Research), Analyst Statistician

Robert E. Lee, B.Sc. (U. of Vic.), M.Sc. (Brit.Col.), Analyst Statistician

Alan R. Wilson, B.Sc. (U.N.B.), Analyst Statistician

**Personnel Services:**

Peter J. van der Leeden, Dip. S.W., Director

E. Ann Erdman, B.Sc. (Brit. Col.), Radiation Protection Officer

Frances H. Goldberg, B.Ed. (Alta.), Administrative Officer

Daphne Longridge, B.M.L.Sc. (Brit. Col.) Chemical/Biosafety Officer

Richard G. Piskor, B.Ed. (Man.), Occupational Health and Safety Officer

A. Philip Reusing, B.A. (Carleton), Personnel Officer

**Public Relations and Information Services:**

Evelyn Samuel, B.A., Dip.Ed. (Alta.), Director

Donna Danylchuk, B.A. (McGill), B.J. (Carleton), Information Officer

Robie Liscomb, B.A. (Tufts), M.A. (Hollins). Information and Public Relations Officer

G.J. Kim Whale, B.A., M.A. (S. Fraser), Information Officer

**Registrar** (University Secretary):

R. Ferry, B.A. (Tor.), Registrar, and Secretary to the Board of Governors

**OFFICE OF THE VICE PRESIDENT, ACADEMIC**

F. Murray Fraser, Q.C., B.A., LL.B. (Dal.), LL.M. (Lond.), Vice President, Academic (to June 30, 1988)

**Administrative Registrar:**

D. Cledwyn Thomas, B.A. (Wales), Administrative Registrar

Lauren Charlton, B.A., Dip.Ed. (U. of Vic.), Records Officer, Academic Programs

E. Keith Clamp, B.Ed. (Alta.), M.A. (U. of Vic.), Records Officer, Professional Programs

Cecilia Freeman-Ward, B.A., Dip.Ed., M.P.A. (U. of Vic.), Director of Admission Services

Anna Gardziejewska, B.A. (Man.), Admissions/Liaison Officer

David A.C. Glen, B.A. (Mt. Allison), Director of Records Services

Christopher Moss, B.Ed. (Brit. Col.), Admissions/Liaison Officer

Kevin D. Paul, B.A., B.A. (U. of Vic.), Admissions/Records Officer, Graduate Studies

Richard A. Rennie, C.D., B.Comm. (Brit. Col.), LL.B. (U. of Vic.), M.P.A. (Carleton), Admissions/Records Officer

Elda Rocca, Administrative Officer

Ronald E. Stevens, B.Sc. (U. of Vic.), Scheduling Officer

**Business & Industry Development Centre:**

David R.C. Wright, B.Sc. (Tor.), University-Industry Liaison Officer

Kenneth R. Milbrath, B.Sc. (U. of Vic.), M.B.A. (Dal.), Enterprise Development Officer

**Cooperative Education Programs:**

Graham R. Branton, B.Sc., Ph.D. (Southampton), Director

Joanne R. Thomas, B.A. (U. of Vic.), Assistant to the Director

**Library:**

Sandra L. Acker, B.A. (Mich.), M.A. (Wash. St.), B.L.S. (Alta.), Music Librarian

S. Howard Bayley, M.A. (Edin.), A.L.A. (Strathclyde, Glasgow), Collections Librarian

Marilyn E. Berry, B.A., B.L.S. (Brit. Col.), Reference Librarian

Vicki M. Booth, B.A., M.L.S. (Brit. Col.), Cataloguing Librarian

G. Robert Campbell, Systems Analyst

John N. Davis, LL.B. (Tor.), M.L.S. (W. Ont.), Law Librarian

John O. Dell, B.A., B.L.S. (Brit. Col.), Cataloguing Librarian

Patricia A. Ekland, B.A. (Regina), B.L.S. (Alta.), Reference Librarian

Robert W. Farrell, B.A., M.A. (Dublin), B.L.S. (McGill), Collections Librarian

Joan N. Fraser, B.A., B.L.S. (Brit. Col.), Law Public Services Librarian

Howard B. Gerwing, B.A., B.L.S. (Brit. Col.), Special Collections Librarian

Betty J. Gibb, B.A. (Mich. St.), M.L.S. (Wash.), Interlibrary Loans Librarian

Dorothy Grieve, B.A. (W. Ont.), B.L.S. (Brit. Col.), Reference Librarian

Donald E. Hamilton, B.A. (Mt. Allison), M.S.L. (W. Mich.), Education Librarian

Hugh L. Irving, B.A., B.L.S. (Brit. Col.), Assistant Head, Cataloguing

David Isaak, B.A. (United Coll.), B.L.S. (Tor.), Reference Librarian

Hana J. Komorous, M.A., C.L.S. (Charles), Serials Librarian

Mary Beth MacDonald, B.A. (Brit. Col.), M.L.S. (Tor.), Circulation Librarian

Gene Mah, B.A. (Virginia Poly. Inst.), M.L.S. (Rosary Coll.), Cataloguing Librarian

Christopher G. Petter, B.A. (U. of Vic.), M.A., M.Phil. (Leeds), M.L.S. (W. Ont.), Archives Librarian

Elena Romaniuk, B.Sc. (McMaster), M.L.I.S. (Univ. of Illinois), Serials Librarian

Frances E. Rose, B.A. (N.B.), B.L.S. (McGill), Government Documents Librarian

Margaret A. Salmond, B.A. (Vic. Coll.-Brit. Col.), M.A. in L.S. (Denver), Law Cataloguing Librarian

Priscilla R. Scott, B.A. (Brit. Col.), B.L.S. (Tor.), Head, Circulation

Donna L. Signori, B.A., M.A. (Brit. Col.), M.L.S. (Tor.), Collections Librarian

William R. Taggart, B.A. (Man.), B.L.S., M.A. (McGill), Head, Collections

June G. Thomson, B.A. (Alta.), M.A. (Tor.), B.L.S. (McGill), Head, Cataloguing

Jean I. Whiffin, B.A., B.L.S. (Tor.), Head, Serials

Donald J. White, B.A. (San Jose St.), M.L.S. (Rutgers), M.A. (Memorial), Reference Librarian

#### **Division of University Extension and Community Relations:**

D. Gordon Thompson, B.Sc., M.A. (Man.), Ph.D. (Wis.), Director

Laurence E. Devlin, B.Ed. (U. of Vic.), M.A., Ph.D. (Chicago), Associate Director

Sharon Alexander, B.A., B.Ed. (Tor.), M.A. (U. of Vic.), Ed.D. (Brigham Young), Program Coordinator — Education

Monique Cléban, L. ès L., M.A. (Grenoble), Program Coordinator — Special French Programs

Faith B. Collins, B.Sc.N. (Mount St. Vincent), B.A., M.Ed., Ed.D. (Seattle), Program Coordinator — Health Science Programs

Murray D. Edwards, B.A. (Sask.), M.A., Ph.D. (Columbia), Program Coordinator — Fine Arts Extension Programs

Christina Gambrell, Program Assistant — Language Programs

Gerald A. Gauthier, B.A. (N.D.U., Nelson), Assistant to the Director

W. (Trudy) Hadley, Program Assistant — Public Administration

Thomas G. Lietaer, B.A. (York), Conference Officer

Brishkai Lund, B.A. (San Diego St.), M.A. (Wash.), Program Coordinator, Humanities and Social Sciences

Mary Ransberry, Conference Office and Social Sciences

Katharine Seaborne, B.A., M.Ed. (U. of Vic.), M.A. (Northwestern), Program Coordinator — Distance Education

Alexander L. Slade, B.A. (U. of Vic.), B.L.S. (Brit. Col.), Extension Librarian

Judith Somers, B.A. (Wash.), Program Assistant — Distance Education

Rhordon D. Wikkramatileke, B.A., M.P.A. (U. of Vic.), Program Coordinator — Public Administration, Business and Management Programs

Gail Woods, B.F.A. (U. of Vic.) Promotion and Publications Officer

#### **Research Administration:**

John J. Jackson, M.Sc. (Ottawa), Ph.D. (Alta.), Associate Vice President, Research

Fred H. Bennett, B.Com. (Alta.), M.B.A. (Brit. Col.), Research Administration Officer

#### **OFFICE OF THE VICE PRESIDENT, ADMINISTRATION**

J. Trevor Matthews, B.A. (Brit. Col.), M.B.A. (Stanford), Vice President, Administration

Peter A. Darling, B.A.Sc., M.A.Sc. (Brit. Col.), P. Eng., Assistant to the Vice President, Administration

#### **Buildings and Grounds:**

James F. Helme, B.A.Sc. (Brit. Col.), P.Eng., Director

Colin Butterfield, Manager, Janitorial, Mail and Messenger Services

Victor J. Golinsky, Manager, Projects and Telephone Services

Anthony J. James, Manager, Grounds

Donald J. Marykuca, Manager, Traffic, Security, and Motor Pool

James M. Pearce, B.Eng. (McGill), P.Eng., Manager, Maintenance

#### **Campus Planning:**

Gerald A. Robson, B.Sc. (Alta.), Programmer

#### **Computing and Systems Services:**

Herbert R. Widdifield, B.A. (R.M.C.), Director

Douglas A. Alexander, B.Sc. (U. of Vic.), M.Sc. (N. Carolina), Operations Manager, Computing Services

Robert C. Allen, B.Sc., M.Sc. (U. of Vic.), Systems Manager, Computing Services

Arthur C. Brett, B.Sc. (Kansas City), Ph.D. (Missouri), Manager, Computing User Services

Robert W. Carson, Programmer Analyst

Vincent J. Connor, B.Sc. (Belfast), M.Sc. (London), Programmer Analyst

Michael P. Doyle, B.Sc. (U. of Vic.), Programmer

Herbert D. Fox, Network Coordinator

Brenda Gerth, Programmer

Daniel C. Gillett, B.Sc. (U. of Vic.), Programmer Analyst

Moir Glen, B.Sc. (London), Programmer Analyst

Ise N. Henin, Programmer

Merrilee H. Hoen, B.Sc. (Brit. Col.), Programmer Analyst

Kenneth T. Howard, B.A. (Guelph), Senior Programmer Analyst

Vance S. Johnson, B.Sc. (Man.), Senior Programmer Analyst

M. Glenn Jorgensen, Programmer Analyst

Michael J. Keating, B.Sc. (U. of Vic.), Programmer Analyst

John W. King, B.A. (U. of Vic.), Senior Programmer Analyst

Paul A. Kissing, B.Sc. (U. of Vic.), Senior Analyst

Melvin D. Klassen, B.Sc. (U. of Vic.), Senior Programmer Analyst

Patrick R. Konkin, B.Sc. (U. of Vic.), Statistical Analyst

Colin R. Leavett-Brown, Senior Programmer Analyst

Agnes M.J. Lynn, B.Sc. (U. of Vic.), Senior Programmer Analyst

Kenrick I. McGowan, B.A., M.P.A. (U. of Vic.), Data Administrator

Martin T. Milner, B.Sc. (U. of Vic.), Senior Programming Analyst

Paul Molyski, B.Sc. (Brit. Col.), Senior Programmer Analyst

Michael P. Motek, B.Sc. (U. of Vic.), Senior Programmer Analyst

Erica J. Price-Edney, Programmer

N. Paul Sales, B.Sc. (London), Senior Programmer Analyst

Barry S. Smith, B.Sc. (Lakehead), Senior Analyst

Joseph D. Sparrow, Programmer Analyst

David Stothard, B.A. (Brit. Col.), M.P.H. (Minn.), Associate Director, Computing Services

Philip J. Sumsion, Network and Technical Services Manager, Computing Services

Edwin D. Tandy, B.Sc. (U. of Vic.), Programmer

Robert J. Tapp, B.Sc. (U. of Vic.), M.A.Sc. (Brit. Col.), Senior Programmer Analyst

Alan D. Trumpour, B.Sc. (U. of Vic.), Senior Programmer Analyst

Alan Tweedale, B.Sc. (Manchester), Ph.D. (Sussex), Assistant Director, Software Development

Samuel K.P. Wong, B.Sc. (Hong Kong), M.Sc., Ph.D. (Brit. Col.), Senior Analyst

Rudy Zittlau, B.A., B.Sc. (Alta.), Senior Programmer Analyst

#### **Maltwood Art Museum and Gallery:**

Martin J. Segger, B.A., Dip.Ed. (U. of Vic.), M.Phil. (Warburg, London), F.R.S.A., Curator and Director

#### **Student and Ancillary Services:**

Theodore J. Sawchuck, B.Ed. (Alta.), M.Sc. (Wash. St.), M.Ed. (Alta.), Director

*Alma Mater Society*

David Clode, B.Ed. (U. of Vic.), General Manager

*Athletics and Recreational Services*

- Kenneth W.D. Shields, B.A. (Calgary), B.P.E., M.P.E. (Brit. Col.), Manager  
 Howard Kelsey, B.A. (Principia College), M.Sc. (Ore.), Coordinator, Athletics  
 James D. Hays, B.A. (West. Wash.), Coordinator of Physical Education, Athletics and Recreational Facilities; Coordinator of Aquatics and Intramural Sports

*Bookstore*

- Gertraude Martin, Manager  
 Maurice N. Lizin, Operations Coordinator  
 Nijjar Shemdin, B.Sc. (Iraq), M.B.A. (Lebanon), Assistant Manager, Campus Shop

*Chaplains Services* (offered in cooperation with local denominations)

- The Reverend Muriel Adey, B.Sc., M.Div. (Anglican)  
 The Reverend Clare Holmes, B.A., M.Div. (United)  
 Sister Judi Morin, B.Ed., M.Th., (Roman Catholic)  
 Father Leo Robert, (Roman Catholic)

*Counselling Services*

- Robert C. Willihnganz, B.A. (Calif. St. Coll.), Ph.D. (Texas), Manager  
 Mary Jane McLachlan, B.A., B.Ped., B.Ed., M.Ed. (Man.), Counselling Psychologist  
 Joel Newman, B.S., M.S. (Wisc.), Ed.D. (Wash. St.), Counselling Psychologist  
 Joseph A. Parsons, B.A. (Utah), M.A., Ph.D. (Illinois), Coordinator, Learning Skills Program

*Food Services*

- Horst Mann, C.G.A., Manager  
 Ina Bureau, Assistant Manager  
 Dale N. Ede, Administrative Officer  
 Phyllis Swindells, Catering Coordinator (part time)

*Health Services*

- John E. Petersen, M.D. (Alta.), Medical Director  
 Richard Backus, B.Sc., M.D. (Alta.), General Practitioner (part time)  
 Michael C. Bassett, B.Sc. (U. of Vic.), M.Sc., M.D. (Brit. Col.), General Practitioner (part time)  
 William H. Dyson, B.Sc. (Moravian Coll.), M.A., Ph.D. (Kansas), M.D. (McMaster), General Practitioner (part time)  
 Frances Forrest-Richards, B.Sc., M.D., (Alta.), C.R.C.P., F.R.C.P., Psychiatrist (part time)  
 Elizabeth I. Jirik, B.Sc. (U. of Vic.), M.D. (Brit. Col.), General Practitioner (part time)

- Keith McQueen, B.Sc., M.D. (Brit. Col.), General Practitioner (part time)  
 Danielle Pastierovic, B.Sc. (Tor.), M.D. (McMaster), General Practitioner (part time)  
 Sandra L. Taylor, R.N. (B.C.I.T.), B.Sc., M.D. (Calg.), General Practitioner (part time)  
 Stephen Parker, B.Sc. (W. Ont.), B.Sc. (U. of Vic.), Physiotherapist Trainer

*Housing and Conference Services*

- Gavin Quiney, Teaching Dip. (Loughborough), B.Ed. (U. of Vic.) Manager  
 Doris Bloomfield, Assistant Manager, Residence and Conference Services  
 Michael C. Ramsay, B.Ed., B.H.K. (Windsor), Coordinator of Resident Student Affairs

*Student Financial Aid Services*

- Nels I. Granewall, B.A. (U. of Vic.), Manager  
 Robin J. MacLeod, B.A. (Brit. Col.), Financial Aid Officer

**Supply and Technical Services:**

- Peter A. Darling, B.A.Sc., M.A.Sc., (Brit. Col.), P.Eng., Director  
*Audio Visual and Television Services*  
 Ronald A. Harper, B.Ed., M.Ed. (Brit. Col.), Manager  
 Arthur G. Hall, Media Production Coordinator  
*Printing and Duplicating Services*  
 E. Russell Smith, Manager  
*Purchasing Services*  
 George M. Smith, Manager

**University Centre Auditorium:**

- Martin J. Segger, B.A. Dip.Ed. (U. of Vic.), M.Phil. (Warburg, London), F.R.S.A., Manager

**OFFICE OF THE VICE PRESIDENT, FINANCE**

- R.W. McQueen, B.Com. (Brit. Col.), C.A., Vice President, Finance  
 Gwennie Hooper, Financial Assistant

**Accounting Services:**

- Dennis G. Davis, C.A., Director  
 Murray A. Griffith, B.A. (U. of Vic.), Assistant Accountant  
 John R. Levey, C.A., Financial Accountant  
 Frederick W. Marshall, B.Ed. (U. of Vic.), C.G.A., Financial Accountant

**Internal Audit:**

- Brian H. Atwell, F.C.A. (England and Wales), Director

**EMERITUS FACULTY AND HONORARY DEGREE RECIPIENTS**

**EMERITUS FACULTY**

- Jane A. Abramson, B.A., M.A., Social Work (1982)  
 Oliver M. Abrioux, L.ésL., D.E.S., Ph.D. French Language and Literature (1987)  
 Geoffrey J.D. Archbold, B.A. M.A., Classics (1981)  
 Robert D. Armstrong, B.Ed., B.A., M.Ed., Ed.D., Communication and Social Foundations (1988)  
 J. Douglas Ayers, B.Ed., Ph.D., Psychological Foundations in Education (1983)  
 Leo I. Bakony, B.A., Ph.D., Economics (1986)  
 Howard B. Barnett, A.R.C.T., B.A., Mus.Bac., M.A., Ph.D., Music (1973)  
 Walter M. Barss, B.A., M.A., Ph.D., Physics (1982)  
 Alex Bavelas, B.S., M.A., Ph.D., Psychology (1979)  
 Horace D. Beach, B.S.A., B.A., M.A., Ph.D., Psychology (1984)  
 Roger J. Bishop, B.A., B.L.S., M.A., English (1971)  
 Leon Bowden, B.Sc., B. Litt., Ph.D., Mathematics (1983)

- George A. Brand, B.A., M.Ed., Education (1969)  
 Winnett A. Brand, Education (1966)  
 C. Vyner Brooke, B.A., A.M., Ph.D., Modern Languages (1967)  
 John C. Cawood, B.Ed., M.Ed., M.F.A., Art and Music Education (1986)  
 David J. Chabassol, B.A., B.Ed., M.Ed., Ph.D., Psychological Foundations in Education (1988)  
 Kathleen M. Christie, B.A., M.A., Education (1974)  
 John L. Climenhaga, B.A., M.A., Ph.D., Physics (1982)  
 Jean D. Dey, B.Ed., M.Ed., Ed.D., Education (1981)  
 Gwladys V. Downes, M.A., Doct. de l'Un., French Language and Literature (1979)  
 John D. Eckerson, B.S., M.A., Ph.D., Physical Education (1986)  
 P. Maximilian H. Edwards, B.A., M.A., Ph.D., French Language and Literature (1980)  
 Wilma E. Elias, B.A., M.A., Ph.D., Chemistry (1985)  
 Jessie B. Fleming, B.A., Education (1968)  
 Esme N. Foord, B.A., M.A., Ed.D., Arts and Science (1975)

- William H. Gaddes, B.A., Ph.D., Psychology (1978)  
 Sidney G. Gibbins, B.S., Ph.D., Chemistry (1987)  
 Cary F. Goulson, B.A., M.A., Ph.D., Social and Natural Sciences (1988)  
 Robert F. Gray, M.D., M.A., Ph.D., Anthropology (1977)  
 David A. Griffiths, B.A., M.A., Doct. de l'Un., Lauréat de l'Acad.,  
 French Language and Literature (1985)  
 Edwin M. Hagmeier, B.A., M.A., Ph.D., Biology (1987)  
 John F. Hall, A.B., M.S., Ph.D., Social and Natural Sciences (1987)  
 Herta M. Hartmanshenn, Ph.D., Germanic Languages and Literature  
 (1976)  
 Nora E. Haimberger, B.A., M.A., Ph.D., Germanic Studies (1983)  
 W. Harry Hickman, M.A., Doct. de l'Un., French Language and Literature  
 (1974)  
 Gordon N. Hobson, B.A., M.A., Ph.D., Psychology (1986)  
 Edgar B. Horne, B.A.Sc., B.A., M.A., Ph.D., Social and Natural Sciences  
 (1987)  
 Howard J.N. Horsburgh, M.A., B.Litt., B.Sc., Philosophy (1984)  
 Charles H. Howatson, B.A., M.A., Geography (1983)  
 Herbert H. Huxley, M.A., Classics (1982)  
 D. Elizabeth Kennedy, B.A., M.A., Mathematics (1985)  
 Dorothy J. Kergin, B.S.N., M.P.H., Ph.D., D.Sc., Nursing (1988)  
 A. Richard King, B.A., Ph.D., Communication and Social Foundations  
 (1985)  
 Arthur Kratzmann, B.Ed., M.Ed., Ph.D., Communication and Social  
 Foundations (1986)  
 Frederick Kriegel, 2nd State Cert., Germanic Languages and Literature  
 (1970)  
 Jan Kupp, B.A., M.A., Ph.D., History (1979)  
 Burton O. Kurth, B.A., Ph.D., English (1985)  
 Chester L. Lambertson, M.A., Ph.D., English (1976)  
 Robert G. Lawrence, M.A., Ph.D., English (1985)  
 Roy F. Leslie, B.A., M.A., Ph.D., English (1987)  
 Jean Letourneau, Dip., Music (1986)  
 Alfred E. Loft, B.A., History (1976)  
 Samuel L. Macey, B.A., Ph.D., F.M.S. English (1987)  
 Donald J. MacLaurin, B.A.Sc., M.S., Ph.D., P.Eng., Chemistry (1973)  
 J. Beattie MacLean, B.A., M.A., Ph.D., Germanic Languages and Literature  
 (1973)  
 Fred. L. Martens, B.A., B.Ed., M.S., Ph.D., Physical Education (1982)  
 Geoffrey P. Mason, B.A., M.A., Ph.D., Psychological Foundations in  
 Education (1984)  
 Frederick Mayne, B.A., Ph.D., English (1979)  
 Barbara McIntyre, B.A., M.A., Ph.D., Theatre (1981)  
 John McLeish, B.Sc., Ed.B., M.Ed., Ph.D., Psychological Foundations in  
 Education (1982)  
 G. Grant McOrmond, C.D., M.A., English (1987)  
 Malcolm A. Micklewright, B.A., Ph.D., Geography (1986)  
 Richard H.J. Monk, B.A., M.Ed., Ph.D., Communication and Social  
 Foundations (1979)  
 O. Phoebe Noble, B.A., Mathematics (1978)  
 Robert N. O'Brien, B.A.Sc., M.A.Sc., Ph.D., F.R.S.A., Chemistry (1986)  
 Edward E. Owen, B.A., M.A., Ph.D. Social and Natural Sciences (1987)  
 G. Neil Perry, B.A., M.P.A., A.M., Ph.D., LL.D., Public Administration  
 (1977)  
 Sydney G. Pettit, M.A., History (1972)  
 Diana M. Priestly, B.A., LL.B., M.L.L., Law (1987)  
 Kenneth W. Rankin, M.A., Ph.D., Philosophy (1985)  
 Dolores Reventlow, B.A., Ph.D., Hispanic and Italian Studies (1983)  
 Reginald H. Roy, C.D., B.A., M.A., Ph.D., F.R.Hist.S., History (1988)  
 Roger A. Ruth, B.S., M.S., Ph.D., Psychological Foundations in Educa-  
 tional (1987)  
 M. Harry Scargill, B.A., Ph.D., Linguistics (1981)  
 Marion A. Small, B.Ed., M.Ed., Art and Music Education (1986)  
 H. Paul Smith, B.A., M.Ed., M.A., Ph.D., Mathematics (1986)  
 Bérange B. Steel, L. ès L., French Language and Literature (1973)  
 Harry M. Sullivan, B.Sc., M.Sc., Ph.D., Physics (1986)  
 Robert Swailes, B.S.A., M.Ed., Social and Natural Sciences (1986)  
 Neil A. Swainson, B.A., B.Ed., M.A., Ph.D., Political Science (1985)  
 Hugh Taylor, B.A., M.Ed., Ed.D., Psychological Foundations in Educa-  
 tion (1987)  
 Fred T. Tyler, B.Sc., M.A., M.Ed., Ph.D., Education (1973)  
 Margery M. Vaughn, L.R.S.M., Mus.G., B.Mus., M.Litt., Ed.D., Art and  
 Music Education (1986)  
 Jean-Paul Vinay, L. ès L., M.A., Agrégé de l'Un., Officier d'Académie,  
 D.Litt., F.R.S.C., Linguistics (1976)  
 Robert T.D. Wallace, M.A., LL.D., Mathematics (1971)  
 William D. West, Theatre (1985)  
 Rudolph A. Wikkramatileke, B.A., M.A., Ph.D., Geography (1986)
- HONORARY DEGREE RECIPIENTS, 1987**  
 George Louie, Hon.LL.D., May 1987  
 Edith Graef McGeer, Hon.D.Sc., May 1987  
 John Charles Polanyi, Hon.D.Sc., May 1987  
 Arnold Spohr, Hon.D.F.A., May 1987  
 Margaret Louise Thomson, Hon.LL.D., November 1987

## STATISTICS

### ENROLLMENT 1987-88 AS OF NOVEMBER 1, 1987

<b>Faculty of Arts and Science — Full Time*</b>	
First Year	1216
Second Year	1163
Third Year	1063
Fourth Year	817
Unclassified as to year	99
Total in Faculty	4358
<b>Faculty of Education — Full Time*</b>	
First Year	1
Second Year	144
Third Year	201
Fourth Year	199
Fifth Year	204
Sixth Year	27
Unclassified as to year	17
Total in Faculty	793
<b>Faculty of Engineering — Full Time*</b>	
First Year	83
Second Year	120
Third Year	41
Fourth Year	28
Total in Faculty	272
<b>Faculty of Fine Arts — Full Time*</b>	
First Year	174
Second Year	181
Third Year	142
Fourth Year	120
Unclassified as to year	3
Total in Faculty	620
<b>Faculty of Human and Social Development — Full Time*</b>	
First Year	2
Second Year	41
Third Year	178
Fourth Year	162
Unclassified as to year	16
Total in Faculty	399
<b>Faculty of Law — Full Time*</b>	
First Year	99
Second Year	95
Third Year	81
Unclassified as to year	2
Total in Faculty	276
Total full time undergraduates*	6718
Total part time undergraduates	4121
Total Undergraduates	10839

\* Undergraduates registered in 12 units or more.

Source: University of Victoria Registration  
Statistics 1987-88 as of November 1, 1987

### Faculty of Graduate Studies

Full time	862
Part time	303
Total in Faculty	1165
<b>Grand Total</b>	<b>12004</b>

### FULL TIME STUDENTS OF NON-B.C. ORIGIN 1987-88

Determined by location of previous educational institution attended.  
(Figures for 1985-86 are in brackets.)

Alberta	363
Saskatchewan	42
Manitoba	29
Ontario	195
Quebec	37
New Brunswick	8
Nova Scotia	14
Prince Edward Island	3
Newfoundland	3
Yukon	16
Northwest Territories	6
Other Countries	414
Total	1130

### DEGREES CONFERRED 1985-87

B.A. — 640; B.Ed. — 275; B.F.A. — 65; B.Mus. — 26; B.Sc. — 359;  
B.S.N. — 87; B.S.W. — 55; LL.B. — 96; M.A. — 93; M.Ed. — 91; M.F.A.  
— 1; M.Mus. — 2; M.P.A. — 17; M.Sc. — 35; Ph.D. — 30.  
TOTAL — 1863.

### PERMANENT BUILDINGS ON THE UNIVERSITY CAMPUS

Student Union Building (1962) addition 1976	Sedgewick Building (1968) additions (1969, 1970)
Clearihue Building (1962) Classroom-Office Extension (1971)	Cadboro Commons/Craigdarroch Office Building (1969)
Third Wing (1976)	Lansdowne Residence Buildings (1969)
Fourth Wing (1979)	Cunningham Building (1971)
Cornett Building (1966)	Saunders Building (1974)
Elliott Building (1963)	McKinnon Building (1975)
Lecture Wing (1964)	University Centre (1978)
Craigdarroch Residence Buildings (1964)	Visual Arts Building (1978)
additions (1966, 1967, 1973, 1981)	Gordon Head Residence Buildings (1978)
Campus Services Building (1965)	Begbie Building (1980)
McLaurin Building (1966)	Phoenix Building (1981)
Music Wing (1978)	McGill Residence Buildings (1981)
McPherson Library (1964) addition (1973)	Science & Engineering Complex (1985)

## INDEX I — FACULTY MEMBERS AND ADMINISTRATIVE AND ACADEMIC PROFESSIONAL STAFF

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Administration	Sedgewick	C-3
Administration Stores	Campus Services	B-3
Administrative Registrar	University Centre	C-3
Administrative Systems	Cleanhuc	C-3
Administration Services (Undergraduate)	University Centre	C-3
Administration Services (Graduate)	University Centre	C-3
Admission Services (Law)	Regbie	C-3
Advising Centre (Arts & Science)	Cleanhuc	C-3
Advising Centre (Education)	MacLaurin	B-4
Alma Mater Society	Student Union	D-3
Alma Mater Society Ombudsperson	Student Union	D-3
Alumni Association	Sedgewick	B-3
Anthropology	Cornell	C-3
Arts & Science (Deans' Offices)	Cleanhuc	C-3
Athletics & Recreational Services	McKinnon	C-2
Audio-Visual & Television Services	McPherson Library	C-3
Biochemistry & Microbiology	Science & Engineering Complex	C-4
Biology	Cunningham	C-3
Bookings	University Centre	C-3
Buildings & Grounds	Campus Services	C-2
Business & Industry Development Centre	Saunders	D-2
CFUV Radio	Campus Services	D-2
Campus Planning	Student Union	D-3
Centre for Asia-Pacific Initiatives	Saunders	D-3
Centre for Earth & Ocean Research	Regbie	D-2
Centre for Speech Technology Research	Elliott	A-3
Ceremonics & Special Events	Cleanhuc	C-3
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Computing and Systems Services	Cleanhuc	C-3
Conference Services	Cranglaroch Office Building	C-3
Cooperative Education Programs	Cleanhuc	D-3
Counselling Services	University Centre	C-3
Creative Writing	Cleanhuc	C-3
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Economics	Cornell	B-3
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LACIR (B.C. Advanced Systems Institute)	Sedgewick	B-3
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Marine	Student Union	D-3
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University Extension & Community Relations	University Centre	C-3
University House-1	University Centre	C-3
University House-2	3815 Haro Rd.	E-4
Vice President, Academic & Administration	3817 Haro Rd.	E-4
Vice President, Finance	Sedgewick	B-3
Visual Arts	University Centre	C-3
Women's Studies	Visual Arts/M Building	D-1
	Cleanhuc	C-1

## VISITOR PARKING:

**EVENINGS** (6:00 p.m.-7:00 a.m.), **WEEKENDS AND STATUTORY HOLIDAYS**

### Surface Parking:

No fees required.

Park in any lot except "B" and reserved parts of "6" and "D". No restrictions weekends and Statutory Holidays.

### Covered Parking:

Parkade below University Centre. Terms and rates are posted inside Parkade.

**Surface Parking:** Limited metered space available in most lots. See symbol (M) on map.  
**Daily:** Purchase permit at a Campus Directory and park in an unreserved space in any numbered lot outside Ring Road.  
**Covered Parking:** Parkade below University Centre. Terms and rates are posted inside Parkade.



