











# UNIVERSITY OF VICTORIA

VICTORIA, BRITISH COLUMBIA, CANADA

## *Calendar*

*1970-71*

The **University of Victoria** is constituted under the terms of the Universities Act (Bill number 63, 1963). This Act provides for the establishment of Convocation, the Board of Governors, the Senate, the Faculty Council, and the Faculties. It 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.



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# ACADEMIC YEAR 1970-71

<i>Day</i>	<i>Date</i>	<i>Item</i>	<i>1970</i>
Wednesday	1 July	Academic Year begins.	
Wednesday	1 July	Dominion Day. University closed.	
Thursday	2 July	Last day for submission of applications for re-registration in undergraduate Faculties in the Session 1970-71 by students registered earlier.	
Thursday	2 July	Last day for submission of applications for students transferring from B.C. regional, district and private colleges.	
Friday	3 July	Fee for late submission of applications for students mentioned in July 2 entry becomes effective at 12:00 noon.	
Thursday	2 July	} Summer Session 1970.	
Saturday	15 Aug.		
Saturday	1 Aug.	Last day for submission of applications from all other students for admission to undergraduate Faculties in Session 1970-71.	
Monday	3 Aug.	Fee for late submission of applications for admission for students mentioned in Aug. 1 entry becomes effective at 12:00 noon.	
Monday	3 Aug.	} Supplemental examinations for Session 1969-70.	
Friday	7 Aug.		
Monday	7 Sept.	Labour Day. University closed.	
Monday	7 Sept.	Assigned accommodation in University residences becomes available in the evening.	
Tuesday	8 Sept.	} Registration in person in all Faculties for the Session 1970-71. Details of place and time are mailed to all students receiving Notice of Admission or Authorization to Register.	
Friday	11 Sept.		
Monday	14 Sept.	First term classes begin. Fee for late registration becomes effective.	
Tuesday	15 Sept.	Beginning of two week regular course change period.	
Tuesday	15 Sept.	Meeting for all new undergraduate students at 1:00 p.m. in the University gymnasium; sponsored by A.M.S.	
Wednesday	16 Sept.	Senate meets.	
Friday	18 Sept.	Last day of late registration period.	
Monday	21 Sept.	Board of Governors meets.	
Friday	25 Sept.	Last day of regular course change period. All changes must be reported to the Registrar's Office by 4:00 p.m. on this date. All changes requested in the following two week period must be approved by the instructor in those Faculties which permit such changes.	
Saturday	26 Sept.	Late payment fee becomes effective on first fee instalments.	
Friday	9 Oct.	Last day for changes in certain courses with permission of instructor. All changes must be reported to the Registrar's Office by 4:00 p.m. on this date.	
Monday	12 Oct.	Thanksgiving Day. University closed.	
Wednesday	14 Oct.	Senate meets.	
Monday	19 Oct.	Board of Governors meets.	
Friday	30 Oct.	Academic Assembly.	

<i>Day</i>	<i>Date</i>	<i>Item</i>
Tuesday	10 Nov.	Senate meets.
Wednesday	11 Nov.	Remembrance Day. University closed.
Monday	16 Nov.	Board of Governors meets.
Tuesday	8 Dec.	Last day of classes in the first term.
Wednesday	9 Dec.	Senate meets.
Thursday	10 Dec.	Examinations begin.
Saturday	19 Dec.	First term examinations end.
Monday	21 Dec.	Board of Governors meets.
Friday	25 Dec.	} Christmas holidays. University closed.
Monday	28 Dec.	

#### 1971

Friday	1 Jan.	New Year's Day. University closed.
Monday	4 Jan.	Second term classes begin.
Wednesday	13 Jan.	Senate meets.
Friday	15 Jan.	Last day for changes in second term courses.
Saturday	16 Jan.	Late payment fee becomes effective on second fee instalments.
Monday	18 Jan.	Board of Governors meets.
Wednesday	10 Feb.	Senate meets.
Monday	15 Feb.	Board of Governors meets.
Monday	22 Feb.	} Reading Week. Classes cancelled. Library open.
Friday	26 Feb.	
Wednesday	10 Mar.	Senate meets.
Monday	15 Mar.	Board of Governors meets.
Thursday	8 Apr.	Last day of lectures.
Friday	9 Apr.	} Good Friday to Easter Monday. University closed.
Monday	12 Apr.	
Tuesday	13 Apr.	Sessional examinations begin.
Wednesday	14 Apr.	Senate meets.
Monday	19 Apr.	Board of Governors meets.
Friday	30 Apr.	Last day for submission of applications for awards listed on pages 312 to 333.
Tuesday	4 May	Sessional examinations end.
Monday	17 May	Board of Governors meets.
Monday	24 May	Victoria Day. University closed.
Saturday	29 May	Convocation.
Monday	21 June	Board of Governors meets.
Wednesday	30 June	Academic Year ends.

# UNIVERSITY OF VICTORIA

## BOARD OF GOVERNORS

### Ex Officio:

The Chancellor.

The President.

### Appointed by the Lieutenant-Governor in Council:

Willard E. Ireland, M.A. (Chairman). Term expires June 30, 1971.

Lloyd G. McKenzie, Q.C., B.A., LL.B. (Vice-Chairman). Term expires October 31, 1972.

Justin V. Harbord. Term expires October 31, 1972.

Hershell A. Smith. Term expires October 31, 1972.

Gilbert F. Auchinleck, B.A.Sc. Term expires June 30, 1971.

Jean K. Petrie, B.Sc., Ph.D. Term expires June 30, 1971.

### Elected by the Senate:

C. Hilary Butler, B.A., M.A. Term expires December 31, 1972.

Charles Gregory, M.B., Ch.B., Cert. in Psych. R.C.P.S. Term expires December 31, 1972.

Alexander M. Hall, B.S.A. Term expires December 31, 1972.

### Secretary to the Board:

J. Trevor Matthews, B.A., M.B.A.

## SENATE

### Ex Officio:

The Chancellor.

The President (Chairman).

The Deans of the Faculties.

The University Librarian.

### Appointed by the Senate:

Dean of Administration.

Dean of College and Student Affairs.

### Elected by the Faculties:

Kenneth C. Moss, B.Sc., A.R.C.S., D.I.D., Ph.D. (Arts and Science). Term expires June 1972.

Hugh E. Farquhar, M.A., Ph.D. (Education). Term expires June 1972.

Alan Gowans, M.A., M.F.A., Ph.D. (Fine Arts). Term expires June 1972.

Harry W. Dosso, B.A., M.Sc., Ph.D. (Graduate Studies). Term expires June 1970.

### Elected by the Joint Faculties:

Roger J. Bishop, B.A., B.L.S., M.A. Term expires June 1972.

William R. Gordon, M.A., Ph.D. Term expires June 1972.

T. Rennie Warburton, B.A., Ph.D. Term expires June 1972.

W. Gordon Fields, A.M., Ph.D. Term expires June 1971.

J. Beattie MacLean, B.A., M.A., Ph.D. Term expires June 1971.

Goffrey P. Mason, M.A., Ph.D. Term expires June 1971.

Richard J. Powers, B.A., M.A., Ph.D. Term expires June 1971.

Roy E. L. Watson, M.A., Ph.D. Term expires June 1971.

Walter M. Bars, M.A., Ph.D. Term expires June 1970.

Ronald I. Cheffins, B.A., LL.B., LL.M. Term expires June 1970.

John M. Dewey, B.Sc., Ph.D. Term expires June 1970.  
Cary F. Goulson, M.A., Ed.D. Term expires June 1970.  
John E. McInerney, B.Sc., M.Sc., Ph.D. Term expires June 1970.

**Elected by the Alma Mater Society:**

Mary H. Johanson. Term expires September 1970.  
Ian B. McKinnon. Term expires September 1970.

**Elected by the Graduate Students' Society:**

Lawrence T. Kirby, B.Sc. Term expires September 1970.

**Elected by the Convocation:**

C. Hilary Butler, B.A., M.A. Term expires December 1972.  
J. David N. Edgar, B.Com., LL.B. Term expires December 1972.  
Charles Gregory, M.B., Ch.B., Cert. in Psych. R.C.P.S. Term expires December 1972.  
Alexander M. Hall, B.S.A. Term expires December 1972.  
Eugene M. Johnson, B.A., LL.B. Term expires December 1972.  
J. David T. Price, B.Ed., M.Ed. Term expires December 1972.

**Appointed by the Lieutenant-Governor in Council:**

N. D. Cameron, B.A. Term expires August 1972.  
G. F. Homer, M.D., F.R.C.S. (Eng.). Term expires August 1972.  
Two appointments pending.

**Secretary of Senate:**

The Registrar (*ex officio*).

#### VISITOR

The Honourable John Robert Nicholson, P.C., O.B.E., LL.D., LL.B., Lieutenant-Governor of the Province of British Columbia.

#### CHANCELLOR

Roderick L. Haig-Brown, LL.D.

#### PRESIDENT

Bruce J. Partridge, A.B., LL.B., J.D.

#### OFFICERS OF CONVOCATION

The Chancellor (Chairman).

The Registrar (Secretary).

#### VICE-PRESIDENTS

Robert T. D. Wallace, M.A.

Vice-President for Academic Affairs, to be appointed.

Vice-President for Administration, to be appointed.

#### DEANS AND OTHER SENIOR ADMINISTRATIVE OFFICERS

John L. Climenhaga, M.A., Ph.D., Dean, Faculty of Arts and Science.

James E. Currie, B.Com., M.B.A., Executive Assistant to the President.

Hugh E. Farquhar, M.A., Ph.D., Director of Summer Session.

Ron J. P. Ferry, B.A., Registrar.

Arthur R. Fontaine, B.Sc., D.Phil., Associate Dean, Faculty of Graduate Studies.

Peter Garvie, M.A., Dean, Faculty of Fine Arts.

William R. Gordon, B.A., M.A., Ph.D., Assistant Dean of the Faculty of Arts and Science.

Dean W. Halliwell, M.A., B.L.S., University Librarian.

Ronald R. Jeffels, C.D., B.A., B.Ed., M.A., Director of Admissions.

J. Trevor Matthews, B.A., M.B.A., Secretary to the Board of Governors, Assistant to the President.

Robert W. McQueen, B.Com., C.A., Bursar.

M. Harry Scargill, B.A., Ph.D., Dean of the Faculty of Graduate Studies (to June 30, 1970).

Peter L. Smith, B.A., Ph.D., Associate Dean of the Faculty of Arts and Science.

Fred. T. Tyler, B.Sc., M.A., M.Ed., Ph.D., Dean of the Faculty of Education.

#### ACADEMIC HEADS AND CHAIRMEN

Olivier M. Abrioux, L. ès L., D.E.S., Ph.D., Head, Department of French Language and Literature.

Ralph G. Allen, B.A., D.F.A., Chairman, Department of Theatre.

Geoffrey J. D. Archbold, B.A., M.A., Acting Chairman, Department of Classics.

Gordon W. Bertram, B.A., Ph.D., Chairman, Department of Economics.

Pablo Cabañas, Licenciado, Doctor en Filosofía y Letras, Head, Department of Hispanic and Italian Studies.

William K. Cross, B.Ed., M.A., Director of Student Teaching, Faculty of Education.

Harry W. Dosso, B.A., M.Sc., Ph.D., Head, Department of Physics.

W. Gordon Fields, B.A., A.M., Ph.D., Head, Department of Biology.

Charles N. Forward, B.A., M.A., Ph.D., Acting Head, Department of Geography.

Alan Gowans, M.A., Ph.D., Chairman, Department of History in Art.

Norma J. Hawkes, B.A., M.Ed., D.Ed., Director of Advising Centre, Faculty of Education.

James E. Hendrickson, B.A., B.Ed., M.A., Ph.D., Head, Department of History.

Arthur Kratzmann, B.Ed., M.Ed., Ph.D., Assistant to the Dean for Administrative and Supportive Services, Faculty of Education.

Roy F. Leslie, B.A., M.A., Ph.D., Head, Department of English.

J. Beattie MacLean, B.A., M.A., Ph.D., Head, Department of Germanic Languages and Literature.

G. Alexander Milton, B.A., M.S., Ph.D., Chairman, Department of Psychology.

Donald H. Mitchell, B.A., B.Com., M.A., Ph.D., Acting Chairman, Department of Anthropology and Sociology.

Richard H. J. Monk, B.A., M.Ed., Ph.D., Co-Director of Student Teaching (Secondary), Faculty of Education.

Robert E. Myers, A.B., M.A., Ph.D., Co-Director of Student Teaching (Elementary), Faculty of Education.

Kenneth W. Rankin, B.A., M.A., Ph.D., Head, Department of Philosophy.

Terence M. Rickwood, B.A., Ph.D., Head, Department of Slavonic and Oriental Studies.

Stephen A. Ryce, B.A., Ph.D., Head, Department of Chemistry.

Neil A. Swainson, B.A., B.Ed., M.A., Chairman, Department of Political Science.

Jean-Paul Vinay, L. ès L., D.E.S., M.A., Agrégé de l'Université de France, officier d'Académie F.R.S.C., Head, Department of Linguistics.

Alex. J. Wood, B.S.A., M.S.A., Ph.D., Head, Department of Bacteriology and Biochemistry.

Phillip T. Young, B.A., Mus.M., Chairman, Department of Music.

#### FACULTY COUNCIL

##### Ex Officio:

The President (Chairman).  
 The Deans.  
 The University Librarian.  
 The Registrar (Secretary).

##### Elected by the Joint Faculties:

###### Arts

Jerrold L. Mordaunt. Term expires November 1970.  
 James E. Hoard. Term expires November 1971.

###### Science

Thomas W. Dingle. Term expires November 1970.  
 T. David D. Groves. Term expires November 1971.

###### Education

Valdimar K. Johnson. Term expires November 1970.  
 Lloyd O. Ollila. Term expires November 1971.

###### Fine Arts

N. Wandalie Henshaw. Term expires November 1971.

#### UNIVERSITY OF VICTORIA FOUNDATION

Justin V. Harbord (Chairman).  
 William H. Armstrong.  
 Roland O. Bull.  
 Thomas G. Denny.  
 James R. Genge, M.A.  
 Bruce J. Partridge, A.B., LL.B., J.D.  
 Richard B. Wilson, B.Com., LL.D.  
 Hon. Mr. Justice Robert A. Wootton.

**Honorary Members:**

Joseph B. Clearihue, M.C., E.D., Q.C., B.A., B.C.L., LL.D.

Robert W. Phipps.

Robert W. McQueen, B.Com., C.A. (Treasurer).

Floyd A. Fairclough (Secretary).

**CHANCELLOR EMERITUS**

Joseph B. Clearihue, M.C., E.D., Q.C., B.A., M.A., B.C.L., LL.D.

**DEAN EMERITUS**

Henry C. Gilliland, M.A., Dean Emeritus of Education.

**PROFESSORS EMERITI**

George A. Brand, B.A., M.Ed., Professor Emeritus of Education.

C. Vyner Brooke, B.A., A.M., Ph.D., Professor Emeritus of Spanish.

Jeffree A. Cunningham, B.A., LL.D., Professor Emeritus of Zoology.

G. Reid Elliott, B.A., Ph.D., Professor Emeritus of Economics.

**HONORARY DEGREE RECIPIENTS**

\*Charles Johnstone Armstrong, May 1961.

\*Rosalind W. Young, May 1961.

Jeffree Aikin Cunningham, May 1964.

Walter Charles Koerner, November 1964.

W. Kaye Lamb, November 1964.

H. Rocke Robertson, November 1964.

Louis-Albert Vachon, November 1964.

Bristow Guy Ballard, May 1965.

Thomas Rice Henn, May 1965.

Robert Wellington Mayhew, May 1965.

George Randolph Pearkes, May 1965.

Joseph Badenock Clearihue, May 1966.

Leon Johnson Ladner, May 1966.

Phyllis Gregory Ross, May 1966.

William Andrew Cecil Bennett, May 1966.

Donald Grant Creighton, May 1967.

Norman Alexander Robertson, May 1967.

Joseph Roberts Smallwood, May 1967.

Cyril J. Berkeley, May 1968.

George Forrester Davidson, May 1968.

William Bruce Hutchison, May 1968.

Constance Blytha Pearkes, May 1968.

George Woodcock, May 1968.

C. Northrop Frye, May 1969.

Edmund Hillary, May 1969.

His Royal Highness The Prince Philip Duke of Edinburgh, November 1969.

**SENATE REPRESENTATIVES TO THE PROVINCIAL ACADEMIC BOARD**

Fred. T. Tyler, B.Sc., M.A., M.Ed., Ph.D. Term expires November 30, 1972.

Roy E. L. Watson, M.A., Ph.D. Term expires November 30, 1972.

**SENATE REPRESENTATIVE TO THE JOINT BOARD OF TEACHER EDUCATION**

Hugh E. Farquhar, M.A., Ph.D. Term expires November 30, 1972.

\*Under the former affiliation with the University of British Columbia.

# FACULTY AND ADMINISTRATIVE PROFESSIONAL STAFF

NOTE: The University Calendar goes to press in March. In consequence, this list may be subject to some modification when the academic session begins.

- Aaron, Gerald T., B.A. (*Brigham Young*), M.A. (*Brit. Col.*), Visiting Lecturer, Hispanic and Italian Studies.
- Abrioux, Olivier M., L. ès L., D.E.S. (*Paris*), Ph.D. (*Aberdeen*), Professor, and Head of the Department of French Language and Literature.
- Adey, Lionel, B.A., M.A. (*Birmingham*), Ph.D. (*Leicester*), Assistant Professor, English, and Fellow, Craigdarroch College.
- Alexander, Miss Ann M., B.A. (*Radcliffe*), M.A. (*Calif.*), Lecturer, English.
- Alexander, Bruce K., B.A. (*Miami*), M.Sc., Ph.D. (*Wis.*), Visiting Assistant Professor, Psychology.
- Alexander, Douglas A., B.Sc. (*U. of Vic.*), Senior Programmer Analyst.
- Alford, Norman W., B.A. (*London*), Ph.D. (*Texas*), Assistant Professor, English.
- Algard, Franklin T., A.B. (*Calif.*), Ph.D. (*Stanford*), Associate Professor, Biology.
- Alkire, William H., B.A. (*Wash.*), M.A. (*Hawaii*), Ph.D. (*Ill.*), Associate Professor, Anthropology and Sociology.
- Allen, Mrs. Laurie M., B.A. (*Calif.*), Part-time Lecturer, Anthropology and Sociology.
- Allen, Ralph G., B.A. (*Amherst*), D.F.A. (*Yale*), Associate Professor and Chairman of the Department of Theatre.
- Allen, Robert C., B.Sc. (*U. of Vic.*), Systems Development Supervisor (Senior Programmer Analyst).
- Apps, George E., B.A.Sc. (*Brit. Col.*), P. Eng., Superintendent of Buildings and Grounds.
- Archbold, Geoffrey J. D., B.A. (*Brit. Col.*), M.A. (*Cincinnati*), Assistant Professor and Acting Chairman of the Department of Classics.
- Armstrong, Robert D., B.Ed., B.A., M.Ed. (*Alta.*), Ed.D. (*Calif.*), Associate Professor, Education.
- Ashwood-Smith, Michael J., B.Sc., M.Sc. (*Durham*), Ph.D. (*London*), Associate Professor, Biology.
- Atchley, Dana W., B.A. (*Dartmouth*), B.F.A., M.F.A. (*Yale*), Assistant Professor, Studio Visual Arts.
- Austin, Alan P., B.Sc., Ph.D. (*Wales*), Assistant Professor, Biology.
- Ayers, J. Douglas, B.A., B.Ed. (*Brit. Col.*), Ph.D. (*Tor.*), Associate Professor, Education.
- Baartz, Arne P., M.A., Ph.D. (*Ore.*), Assistant Professor, Mathematics.
- Baartz, Mrs. Flora, B.Sc. (*Ore.*), Part-time Lecturer, Mathematics.
- Baker, Mrs. Shirley, B.Sc. (*Sask.*), Co-ordinator of Women's Activities.
- Bakony, Leo I., B.A. (*Brit. Col.*), Ph.D. (*Wash.*), Professor, Economics.
- Baldner, Ralph W., A.B. (*Miami, Ohio*), M.A. (*Vanderbilt*), Ph.D. (*Calif.*), Associate Professor, French Language and Literature.
- Balfour, Walter J., B.Sc. (*Aberdeen*), Ph.D. (*McMaster*), Assistant Professor, Chemistry.
- Ball, Donald W., B.A. (*Calif.*), M.S. (*Ore.*), M.A., Ph.D. (*Calif.*), Assistant Professor, Anthropology and Sociology.
- Ballantyne, David J., B.Com. (*Brit. Col.*), M.Sc. (*Wash. St.*), Ph.D. (*Maryland*), Associate Professor, Biology.
- Barnett, Howard B., B.A., Mus.B. (*Tor.*), M.A., Ph.D. (*Calif.*), A.R.C.T., Associate Professor, Music.
- Barrodale, Ian, B.Sc. (*Wales*), M.A. (*Brit. Col.*), Ph.D. (*Liverpool*), Associate Professor, Mathematics.
- Barss, Walter M., B.A., M.A. (*Brit. Col.*), Ph.D. (*Purdue*), Associate Professor, Physics.

- Bauer, Francis H., B.A., M.A. (Calif.), Ph.D. (Australian Nat. U.), Visiting Professor, Geography.
- Bavelas, Alex, B.S. (Springfield), M.A. (Iowa), Ph.D. (M.I.T.), Professor, Psychology.
- Bayley, Sydney H., M.A. (Edinburgh), A.L.A. (Strathclyde, Glasgow), General Librarian, Collections.
- Beardsmore, Barrington F., B.A. (Liverpool), M.A. (McMaster), Ph.D. (Brit. Col.), Assistant Professor, French Language and Literature.
- Beer, George A., B.A.Sc., M.Sc. (Brit. Col.), Ph.D. (Sask.), Assistant Professor, Physics.
- Bell, Marcus A. M., B.S.F. (Brit. Col.), M.F. (Yale), Ph.D. (Brit. Col.), Assistant Professor, Biology, and Curator of the Herbarium.
- Bell, Robert D., B.A. (P.E.) Sask., M.A., Ph.D. (Ore.), Director of Athletics and Assistant Professor, Education.
- Bender, William G., B.A. (Brit. Col.), Director of Personnel.
- Benzie, William, M.A., Ed.M., Ph.D. (Aberdeen), Assistant Professor, English.
- Bergerud, Arthur T., B.Sc. (Ore.), M.Sc. (Wis.), Ph.D. (Brit. Col.), Assistant Professor, Biology.
- Bergevin, Gilles M., B.A. (Ottawa), License en Sciences Sociales (Montreal), B.L.S. (Tor.), Assistant Librarian.
- Berliner, Liselotte, B.A. (Brooklyn Coll.), M.L.S. (Wash.), General Librarian, Reference.
- Berry, Marilyn E., B.A., B.L.S. (Brit. Col.), General Librarian, Circulation.
- Bertram, Gordon W., B.A. (Brit. Col.), Ph.D. (Calif.), Professor and Chairman of the Department of Economics.
- Best, Michael R., B.A., Ph.D. (Adelaide), Assistant Professor, English.
- Biddulph, Howard L., B.S. (Brigham Young), M.A., Ph.D. (Ind.), Assistant Professor, Political Science.
- Bishop, Roger J., B.A. (Brit. Col.), B.L.S., M.A. (Tor.), Professor, English.
- Bourguès, Jeanne E., L. ès L. (Toulouse), Visiting Assistant Professor, French Language and Literature.
- Bowden, Leon, B.Sc. (London), B.Litt. (Oxon.), Assistant Professor, Mathematics.
- Bradley, Ian L., B.Ed. (Brit. Col.), M.Ed. (West Wash. St.), Ed.D. (Brit. Col.), Visiting Assistant Professor, Education.
- Branton, Graham R., B.Sc., Ph.D. (Southampton), Assistant Professor, Chemistry.
- Bray, Roger W., M.A., Ph.D. (Oxon.), Assistant Professor, Music.
- Briggs, Miss Gillian M., B.A. (London), Lecturer, Hispanic and Italian Studies.
- Brodie, Nancy E., B.Sc. (Bishop's), B.L.S. (Brit. Col.), General Librarian, Systems.
- Brown, Dennis E., B.A., M.A. (London), Lecturer, English. (Leave of absence 1970-71).
- Brückl, Otto K. J., B.A. (Witwatersrand U.), Dr. phil. (Tübingen), Visiting Professor, Germanic Languages and Literature.
- Bryant, John F., Senior Academic Assistant, Geography.
- Burke, James A., A.B., A.M., Ph.D. (Harvard), Assistant Professor, Physics.
- Bushnell, Gordon W., M.A., B.Sc. (Oxon.), Ph.D. (West Indies), Assistant Professor, Chemistry.
- Butler, Bertram C., B.A., B.Com. (Queen's), Part-time Lecturer, History.
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- May, Richard B., B.A. (*Whitman*), M.A., Ph.D. (*Claremont*), Assistant Professor, Psychology.
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- Riddell, James, M.Sc., Ph.D. (*Alta.*), Assistant Professor, Mathematics.
- Riddle, Miss Florence K., B.A. (*Reed Coll.*), M.A. (*Yale*), Ph.D. (*Wash.*), Assistant Professor, English.
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- Ring, Richard A., B.Sc., Ph.D. (*Glasgow*), Assistant Professor, Biology.
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- Rodney, Helen, B.A. (*Alta.*), B.L.S. (*Tor.*), Head, Reference Division, Library.
- Rogak, Earl D., B.Ch. E. (*Cooper Union*), M.S.E., Ph.D. (*Michigan*), Assistant Professor, Mathematics.
- Rowe, Christopher M., B.A. (*Liverpool*), Lecturer, History.
- Rowen, Miss Norma, B.A. (*Oxon.*), Lecturer, English.
- Roy, Miss Patricia E., B.A. (*Brit. Col.*), M.A. (*Tor.*), Ph.D. (*Brit. Col.*), Assistant Professor, History.
- Roy, Reginald H., B.A., M.A. (*Brit. Col.*), Ph.D. (*Wash.*), F.R.Hist.S., Associate Professor of Military History and Strategic Studies, History.
- Ruff, Mrs. Kathleen, B.A. (*Southampton*), B.Ed. (*N.B.*), Visiting Lecturer, French Language and Literature.
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- Russell, Lawrence W., B.A. (*U. of Vic.*), M.A. (*Calif.*), Lecturer, English.
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- Ryce, Stephen A., B.A., Ph.D. (*Brit. Col.*), Professor and Head of the Department of Chemistry.
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- Sinclair, Mrs. Marjorie, C.O.A., Assistant Accountant.
- Skelton, Robin, B.A., M.A. (Leeds), F.R.S.L., Professor, English.
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- Yamaguchi, Takashi, B.Sc. (*Tokyo*), M.A. (*Tor.*), Visiting Associate Professor, Geography.
- Young, Phillip T., B.A. (*Bowdoin*), Mus.M. (*Yale*), Visiting Associate Professor and Chairman of the Department of Music.
- Yoxall, Clive, Supervisor of Janitors.
- Zietlow, Edward R., B.A. (*Dakota Wesleyan*), M.A. (*Boston*), Ph.D. (*Wash.*), Assistant Professor, English.



## 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 the 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 post-war enrolment 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 co-operation of the Department of National Defence and the Hudson's Bay Company) the 284-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 degree.

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 is representative both of the Faculties and of the Convocation. Dr. Joseph B. Clearihue, who was first associated with the former Victoria College in 1902 as a student, became the first Chancellor of the University in the autumn of 1963. Dr. Malcolm Gordon Taylor was appointed first President of the University in July 1964 and served until June 30, 1968. Professor Robert T. Wallace was appointed Acting President for one year. On July 1, 1969, Dr. Bruce J. Partridge became President. Richard B. Wilson was elected Chancellor of the University by acclamation in September 1966 for a three year term. In December 1969, Roderick Haig-Brown was elected Chancellor of the University for a term beginning January 1, 1970.

The historical traditions of the University are reflected in its academic regalia. 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 Arms of the University

Extracts from the official description authorized by the College of Heralds, London: "Azure an open Book proper edged, bound and clasped Or; on a Chief Argent three Martlets Gules; And for the Crest on a Wreath of the Colours: dexter Cubit Arm proper in the hand a Torch erect Or enflamed also proper irradiated Gold and ensigned with a Scroll Argent thereon in Hebrew characters 'Let there be Light' Azure."

**Buildings on the Gordon Head Campus**

Student Union Building (1962)	MacLaurin Building (1966)
Clearihue Building (1962)	Cornett Building (1966)
Elliott Building (1963)	Sir Arthur Currie Hall (1967)
Elliott Building: Lecture Wing (1964)	David Thompson Hall (1967)
Emily Carr Hall (1964)	Sedgewick Building (1968)
Margaret Newton Hall (1964)	addition (1969)
McPherson Library (1964)	Lansdowne College Buildings (1969)
Campus Services Building (1965)	

# ACADEMIC REGALIA

## 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 Degree of Doctor of Laws

- 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 Degree of Doctor of Science

- Gown* Cambridge (Doctor of Music) pattern, scarlet wool broadcloth, trimmed with gold silk taffeta.  
*Hood* Aberdeen pattern, outside shell of scarlet wool broadcloth, lined with gold silk taffeta.  
*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. and B.Mus. 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.Sc. — gold  
  B.Ed. — blue  
  B.F.A. — green  
  B.Mus. — pink  
*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.  
*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.



*Academic Affairs*

*Academic Services*

*Medical, Housing and Food Services*

*Student Affairs*

# ACADEMIC AFFAIRS

## GENERAL INFORMATION

The academic year begins on the first of July and ends on the last day of June. The Winter Session is divided into two terms — the first, September to December; the second, January to May. The Summer Session consists of seven weeks' instruction in July and August. The Calendar Supplement for Summer Session is published separately. A list of credit courses offered in the late afternoon and evening is also published separately.

For the Session 1970-71 the University offers the following degrees through the Faculty of Arts and Science, the Faculty of Education, the Faculty of Fine Arts, the Faculty of Graduate Studies: Bachelor of Arts, Bachelor of Science, Bachelor of Education (a five-year degree preparing teachers for the Elementary and Secondary schools of the Province); Bachelor of Fine Arts, Bachelor of Music, Master of Arts, Master of Fine Arts, Master of Music, Master of Science, Doctor of Philosophy. Also offered are Diploma Programmes in Education for graduates seeking teacher certification.

In choosing undergraduate degree programmes, students are strongly urged to consult the Calendar prescriptions for the degree programme desired. In particular, students choosing the Bachelor of Science degree should normally have taken the Sciences Specialty in senior secondary school.

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 programmes with this in mind. Advice may be obtained from the Academic Advising Office of the Faculty of Education.

By proper selection of First Year courses in Arts and Science, students may equip themselves to enter the first year of Engineering, Forestry, Nursing, and the second year of Agriculture, Physical Education, Pharmacy, at certain other universities. Courses preparatory to Medicine, Dentistry, Law, Architecture, etc., may be taken at the University. See page 306. **Pre-Professional Education.**

## LIMITATION OF ATTENDANCE

1. The University reserves the right to limit attendance, 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.
2. 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.

## PRIORITY SYSTEM FOR ENROLMENT IN THE SESSION 1970-71

A priority system has been established for the admission and re-registration of students in the First and Second Years. This priority system overrides all other statements in the Calendar dealing with the admission and re-registration of students.

The priority system is shown below.

### 1. Priority System for First Year

*Priority 1:* Students resident in British Columbia who have obtained an average of 3.00 (C+) on all subjects (excluding P.H.E. and Guidance 11) in Grades XI and XII in the Academic-Technical Programme (B.C.). The average will be calculated as follows, each grade being assigned a number:

A	=	5
B	=	4
C+	=	3
C	=	2
C- or P	=	1

The student's average is computed by dividing the total by the number of courses.

Example:	English 11	B	4
	English 12	B	4
	Mathematics 11	B	4
	Social Studies 11	C+	3
	Biology 11	B	4
	French 11	C	2
	English Literature 12	B	4
	History 12	B	4
	French 12	C+	3
		Total	= 32
		Average:	$32/9=3.5$

*Priority 2:* Mature students (age 24 or over in 1970), resident in B.C.

*Priority 3:* Adult students (age 21-23 in 1970), resident in B.C.

*Priority 4:* Students resident in British Columbia who do not qualify under the above categories, but who demonstrate promise or potential for success at university. Students falling in this category will be deemed to have demonstrated such promise if they have obtained an average of at least 2.0 (C) as calculated in 1 above, or have satisfied criteria of the Faculty of Fine Arts by submission of appropriate evidence.

*Priority 5:* (a) Students who, in a previous session at University of Victoria, obtained 9 units of credit;

(b) Students from Grade XIII (B.C.) who have passed three full Grade XIII courses (equivalent of 9 units of credit);

(c) Transfer students from regional colleges who have obtained 9 units of transfer credit.

*Priority 6:* Students resident in British Columbia whose average as calculated in 1 above is less than 2.0 (C).

\**Priority 7:* Canadian citizens living outside Canada. e.g. dependents of members of the armed forces, the consular corps, etc.

*Priority 8:* Students who have unsatisfactory standing in First Year at the University of Victoria. All such students must be interviewed by designated University officials in order to determine their eligibility for this level of priority.

\**Priority 9:* Students who hold Canadian citizenship but who are not residents of British Columbia.

\**Priority 10:* Landed immigrants who have lived in the Province of British Columbia for at least one year prior to the beginning of the session 1970-71.

\**Priority 11:* Other landed immigrants.

\**Priority 12:* Students in Canada on student visas.

\*Distinguished students in these priorities may be placed in a higher priority upon the judgement of the Director of Admissions and/or the Senate Committee on Admissions.

(PLEASE NOTE: Students may assume that, if they are granted priorities 1-5, it is highly probable a place will be found for them. Students in other priorities cannot be notified whether a place exists for them until the University knows the total number applying in higher priorities. In consequence, it may not be possible, because of the time involved in processing large numbers of applications, to inform students in priorities 6-12 that they can be accommodated until some time after August 19. Please be assured that the University will do whatever it can to give notice as soon as possible to those in the lower priorities.)

## II. Priority System for Second Year

- Priority 1:* (a) Full-time University of Victoria students with satisfactory standing in the last session attended and credit in more than 14 and fewer than 27 units;  
(b) Full-time qualified transfer students from B.C. universities and colleges with satisfactory standing in the last session (or two semesters) attended and who have more than 14 and fewer than 27 units of acceptable transfer credit;  
(c) Full-time qualified Grade XIII (B.C.) students with five full courses (equivalent of 15 units of acceptable transfer credit);  
(d) Part-time students undertaking one extension course scheduled at 4:30 p.m. or later through University of Victoria.

*Priority 2:* Full-time University of Victoria students, students from other B.C. universities or colleges, students from Grade XIII (B.C.) who have 12 units of acceptable credit.

*Priority 3:* Part-time students (other than those mentioned under Priority 1 d) who have satisfactory standing and are resident in British Columbia.

*Priority 4:* Out-of-Province students with the equivalent of 15 units or more of acceptable transfer credit. Distinguished students in this category may be placed in a higher priority upon the judgement of the Director of Admissions and/or the Senate Committee on Admissions.

*Priority 5:* Special students with satisfactory standing. (A Special Student is defined as one not working towards a degree or diploma.)

*Priority 6:* Students whose standing was unsatisfactory in the last session attended at University of Victoria. All such students must be interviewed by designated University officials in order to determine their eligibility for this level of priority.

*Priority 7:* Auditors.

(PLEASE NOTE: Students may assume that, if they are granted priorities 1-3, it is highly probable a place will be found for them. Students in other priorities cannot be notified whether a place exists for them until the University knows the total number applying in higher priorities. In consequence, it may not be possible, because of the time involved in processing large numbers of applications, to inform students in priorities 4-7 that they can be accommodated until some time after August 19. Please be assured that the University will do whatever it can to give notice as soon as possible to those in the lower priorities.)

### General Notes on the Priority System

1. The University reserves the right to refuse admission or enrolment to students whose overall academic records are considered to be weak, even though such students may meet the technical requirements for admission or re-registration.
2. Should the need arise to limit enrolment in the Third Year, admission or re-registration of students who seek entry to that year will be judged in keeping with the policies mentioned above.
3. In certain programmes of study, facilities cannot be provided to accommodate all those seeking entry. In consequence, even though a student may be admissible to the University, it may not be possible to allow him entry to the programme of his first choice.
4. Students who have already attended the University will be allotted priorities as early as possible in July 1970. By that time, however, the results for students writing summer session and supplemental examinations will not be known. As an administrative procedure only, when priorities are allotted to such students, it will be assumed that those undertaking summer session examinations will pass and those undertaking supplemental examinations will fail. The appropriate corrections will be made when the examination results are known.

### ADMISSION

All inquiries relating to admission to the University should be addressed to the Director of Admissions.

## APPLICATION FOR ADMISSION

1. Students seeking admission for the first time must obtain an **Application for Admission** form from the Director of Admissions. This form will be available after May 1, and must be returned, fully completed and accompanied by all official transcripts of academic records, to the Director of Admissions by the following dates:
  - a) *July 2*: for all students seeking transfer from district, regional and private colleges in British Columbia.
  - b) *August 1*: for all other students seeking admission to the winter session.

NOTE: Students in Grade XII (B.C.) who expect to graduate on the Academic-Technical Programme in June 1970 with an average of at least C+ in the work in Grades XI and XII (excluding P.H.E. and Guidance 11) are entitled to apply early for admission by *May 15*. Details of this new system are available through principals of senior secondary schools. See page 38.
2. Students applying for admission to the 1970 Summer Session who plan to attend the Winter Session 1970-71 must also submit an Application for Re-registration on or before July 2. See page 50.
3. Students seeking admission to the Faculty of Graduate Studies should consult page 275.
4. Each applicant applying for the first time must submit two copies of official transcripts of secondary school records and of any higher studies taken. These statements must accompany the Application for Admission form. Every student is required to state the names of all educational institutions of secondary or higher level attended and to submit evidence of the standing obtained at each. Applicants who hold a B.C. teaching licence or certificate must request that a "Transfer of Credit Statement" be sent to the Director of Admissions by the Registrar of the Department of Education, Douglas Building, Victoria, B.C. Students who have been registered in Grade XIII (B.C.) but who did not undertake the examinations offered by the Department of Education must supply a letter from their school stating the reasons why the examinations were not undertaken. Applications not fully supported by all relevant documents by the dates stipulated above will be subject to a late fee. See page 60.
5. Each applicant whose academic records, in whole or in part, originate outside the Province of British Columbia must pay an Evaluation Fee of \$10. This fee, which is not refundable and which is not applicable to tuition fees, must accompany the Application for Admission or must be paid when evaluation of documents is requested prior to application being made.
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 enrolment. In addition, although a student may be admissible to the University, it may not be possible to grant him entry to the specific programme he would wish to follow.
9. Students should consult the admission requirements for each Faculty since, in certain cases, the student must demonstrate special aptitudes beyond the normal academic requirements, e.g. in Music, Studio Visual Arts, Physical Education, etc.
10. All applicants will be informed in writing of their acceptance or rejection as soon as their applications can be processed by the Admissions Office.
11. Students who do not meet the requirements for admission to the University have the right to appeal their case to the Senate Committee on Admissions. This procedure is carried out by submitting the appeal in writing through the Director of Admissions. In making appeal, a candidate should state specifically why he believes University regulations should be waived in his case.

12. The University of Victoria does not require applicants to undertake the aptitude and achievement tests administered by the Service for Admission to College and University (SACU) or by the College Entrance Examination Board (CEEB). Applicants, particularly those from outside British Columbia, may, if they so desire, include the results of such tests when making application for admission. These results, however, will not be accepted in lieu of the published requirements for admission.

### EARLY APPLICATION FOR ADMISSION

Beginning in the spring of 1970, students who are permanent residents of British Columbia, who will graduate on the Academic-Technical Programme, Grade XII (B.C.), in June 1970, and who expect to receive an average of at least C+ on all courses taken in Grade XI and XII (excluding P.H.E. and Guidance 11), may apply early for admission. This manner of application is totally voluntary on the part of the student and the school concerned.

To make such application, a student should carry out the following steps:

1. Obtain an Application for Admission form and instructions from the principal of the senior secondary school attended.
2. Return the form to the principal for processing and request that he submit the processed form to the Director of Admissions by *May 15, 1970*.
3. As soon as official transcripts are received in July from the Department of Education confirming that the student has graduated, the student mails *two copies* of the transcript to the Director of Admissions at the University.

About June 15, the Director of Admissions will mail a notice to each student indicating whether or not he is admissible. He will also send the student information about the date when he must register in person at the University, about counselling services and course selection, as well as any other information required. In particular, he will send the student a form to complete which must be returned to him by July 10; this form is the student's notice to the University that he will accept the place offered him.

Until the student submits his official transcripts showing graduation from Grade XII, his admission is *provisional* only. Note also that the confirmation to be submitted by July 10 is an important and indispensable part of this system of early notice of admission.

### 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. **Graduates of British Columbia Secondary Schools:** The qualifications for admission to the University are as follows:

(a) **Admission from Grade 12:**

Students must have fulfilled the requirements for graduation from senior secondary school in the Academic-Technical programme prescribed by the Department of Education for the Province of British Columbia. A student must have fulfilled these requirements **by the June** of the year in which he is seeking admission; no student with a deficiency in his academic qualifications will be admitted. Specifically, a student seeking admission must have completed the following courses:

- English 11 and 12
- Social Studies 11
- Guidance and Physical and Health Education 11
- Mathematics 11
- One of: Biology 11, Chemistry 11, Physics 11
- \*One of: French 11, German 11, Latin 11, Spanish 11

\* A course in a Vocational Specialty may be substituted if a Technical Specialty is chosen.

In addition, he must have completed one of the Arts, Sciences or Technical Specialties as set forth below:

<b>Arts (Humanities)</b>	<b>Sciences</b>	<b>Technical</b>
Three courses selected from separate groups below, at least 2 courses of which must be numbered 12:	Three courses:	Three courses:
1. Lang. 12	1. Ma. 12	1. Ma. 12
2. Hi. 12 <i>or</i> Geo. 12	2. One of: Bi. 12 Ch. 12 Ph. 12	2. One of: Bi. 12 Ch. 12 Ph. 12
3. En. Lit. 12	3. One additional science chosen from: Bi. 11, 12 Ch. 11, 12 Ph. 11, 12	3. Vocational Specialty 11 <i>or</i> 12 (not already chosen)
4. Ma. 12		
5. Another Lang. 11 <i>or</i> 12		
6. Hi. 12 <i>or</i> Geo. 12 <i>or</i> Ec. 11 <i>or</i> Law 11 (not taken under 2 above)		

Distinguished students who, while regularly enrolled in a full programme of Grade 12 studies, undertake Grade 13 courses and write and pass the examinations set by the Department of Education may be given credit for courses passed. An evaluation will be carried out by the Director of Admissions.

Students may not receive university credit for senior secondary courses passed for graduation on the Academic-Technical Programme, whether taken among the required courses or as extra subjects.

(b) **Admission from Grade 13:**

- (i) Applicants who have graduated on the Academic-Technical Programme and who have satisfactory standing in Grade 13 courses will be admissible to the University. "Satisfactory standing" is here to be defined as it is for students in attendance at the University of Victoria. See page 57. **Satisfactory Standing.**
- (ii) The University will grant credit for courses passed in the 1970 Grade 13 examinations on the same basis as for students at the University. See page 57. **Credit.**
- (iii) An applicant who cannot qualify for admission under (i) above may appeal in writing through the Admissions Office to the Senate Committee on Admissions when making application for admission. Each such case will be judged separately by that committee.
- (iv) Adult applicants will be considered on an individual basis.

The above qualifications are approved by the Senate of the University. Departmental examinations are administered by the Board of Examiners of the Province on which are representatives of both the University and the Department of Education. Enquiries relating to Secondary School Graduation or to the Grade 12 and Grade 13 examinations should be addressed to the Executive Secretary of the Board of Examiners, Department of Education, Victoria, B.C.

**2. Graduates of Secondary Schools outside British Columbia:** The following specific admission requirements apply, providing that applicants' academic records meet in subject matter and standing both the requirements for admission to this University and the requirements for admission to a recognized university in their own province or country.

An applicant who has completed his secondary education outside the Province and whose family is permanently domiciled in British Columbia will be considered for admission on the same basis as graduates of British Columbia Secondary Schools. For this purpose, Grade XII in any other Canadian province is equated with Grade XII (B.C.)

If applicants are granted admission, they will normally be placed in the First Year but may be granted advanced placement or standing in certain subjects on assessment of their records by the Director of Admission.

(a) **Applicants from other Canadian provinces:**

Alberta, Saskatchewan, Manitoba, Nova Scotia, Newfoundland — Grade 12. — a language other than English is required to the Grade 12 level.

Ontario, New Brunswick — Grade 13.

Quebec — two years at a C.E.G.E.P. (academic programme).

Prince Edward Island — completion of first year at the University of Prince Edward Island or the equivalent.

(b) **Applicants from other countries:**

(i) General Certificate of Education (G.C.E.)

— standing in five subjects including English, a second language, mathematics, a laboratory science, and one academic elective, of which at least three must be at the Advanced (A) Level. At both Ordinary and Advanced Level an average grade of "3" with no subject below "4."

(ii) School Certificate — as for the G.C.E. (i) above, with three passes at the Principal Level on the Higher School Certificate.

(iii) University of Hong Kong Matriculation Certificate — standing equivalent to (i) above.

(iv) Certificate of Matriculation of recognized universities.

(v) High School Graduation and completion of at least one full year of study at an accredited college or university in the United States of America. Grade average of B or better. High School studies to include at least: 7 semesters of English, 6 semesters in a language other than English, 4 semesters laboratory science, 6 semesters mathematics. However, distinguished students who have completed high school graduation only may be admitted to the University.

(vi) Students from India must, as a minimum requirement, possess a bachelor's degree, division I.

3. **Admission from other Universities and Colleges:**

(a) Admission from Recognized Regional and District Colleges in British Columbia

(i) Applicants who have graduated on the Academic-Technical Programme prescribed by the Department of Education will be admissible to the University from recognized regional and district colleges in British Columbia provided that their standing is satisfactory at the college attended. "Satisfactory standing" is here to be defined as it is for students in attendance at the University.

See page 57. **Satisfactory Standing.**

(ii) Credit for courses passed at recognized colleges will be granted on the same basis as for students attending the University. See page 57 **Credit.**

(iii) Applicants from recognized colleges who have not achieved "satisfactory standing" are required to continue at the college in order to raise their standing to a satisfactory level.

Transfer credit, as far as course content is concerned, will be granted provided that courses completed are equivalent to courses offered in the University curriculum (or if not offered are recognized as reaching University standards) and are appropriate to the degree programme elected by the applicant. See approved list of transfer courses by college, pp. 41 to 50.

Mature applicants who lack secondary school graduation but possess good college records will be considered on an individual basis. In any case, applicants who cannot qualify for admission under (i) above, may appeal in writing through the Director of Admissions to the Senate Committee on Admissions. The letter of appeal must accompany the application form and should state briefly the applicant's special circumstances.

(b) Admission from other colleges and universities

- (i) Applicants who meet the admission requirements under Section 1 or 2 above, and who have successfully completed studies at another university or at a college not included in 3(a) above, may be granted admission with transfer credit. Courses completed must be equivalent to courses offered in the University curriculum (or if not offered are recognized as reaching University standards), must be appropriate to the degree programme elected, must be of sufficiently high standing (i.e., at least 5% above the lowest passing mark or the grade above the lowest passing grade) and normally constitute the equivalent of a full year of study when considered individually or in combination. Transfer credit will be tentative only and is subject to review after the students have completed one or more sessions at the University.
- (ii) A student who has failed his last year or has an overall weak record at another institution will not normally be permitted to transfer to the University of Victoria, even though he may possess the admission requirements for secondary school graduates.

Students planning to complete preliminary studies at another institution should verify that their proposed studies are fully acceptable to permit transfer to the University of Victoria.

Transfer credit granted in a degree programme is limited and may not normally be applied to the final two years of the programme. A student may not normally receive credit for subjects taken at a college after he has been granted 30 units of course credit either as transfer credit or through a combination of transfer and University credit.

College students on student visas who apply to transfer to the University of Victoria will be subject to academic screening on the same basis as students seeking admission directly from their home countries.

Except where specifically stated otherwise in the regulations of a particular Faculty, a student may not normally receive a degree unless he completes the equivalent of two full winter sessions in attendance at the University, one of which must be the final year.

#### **Students from Other Countries**

A student from a country where English is not the common language must satisfy the Director of Admissions that his knowledge of English is adequate to permit the successful pursuit of his studies.

A student coming directly from another country must give satisfactory evidence of his ability to meet the costs of tuition, board and room, books, and incidentals.

#### **COURSE EQUIVALENCIES FOR TRANSFER CREDIT**

The following list shows the courses given at district, regional and private colleges in British Columbia which are accepted for transfer credit by the University. The number in brackets after a course shows the credit value upon transfer. This list was correct as of February 15, 1970. Since the colleges are still adding to their offerings, the list will change during any academic year.

At the time this Calendar went to press, Douglas College (New Westminster) and Cariboo College (Kamloops) had not yet decided upon their offerings. In due course, transfer credit will be arranged between these colleges and the University.

1. Capilano College (West Vancouver)

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>
Anthropology & Sociology	Anthro 120 & Soc 100 Soc 100 & 101	A/S 100 (3) Soc 100 (3)	1969-70 course
Biology	Biol 100 & 101 Biol 200 Biol 204	Biol 150 (3) Biol 300 (1½) Biol 306 (1½)	
Chemistry	Chem 100 & 101 Chem 110 & 111 Chem 200 & 201	Chem 120 & 111 (4) Chem 124 & 121 (4) Chem 233 & 231 (3)	
Economics	Two of: Econ 100, 120, 121 Econ 200 & 201	Econ 100 (3) Econ 200 (3)	
English	Engl 100 & one of: 104, 105, 106, 108 Engl 102 & one of: 104, 105, 106, 108 Engl 200 & 201 Engl 204 & 205 Engl 212 & 213	Engl 100 (3) Engl 100 (3) Engl 200 (3) Engl 203 (3) Engl (unassigned) (3)	1969-70 course 1969-70 course
Fine Arts	Fine Arts 100 & 101	Art Hist 100 (3)	
French	Fren 100 & 101	Fren 160 (3)	no credit if Fr 12 already taken
Geography	Geog 100 & 101 Geog 110 & 111 Geog 200 & 201	Geog 101 (3) Geog 101 (3) Geog 201 (3)	
German	Germ 100 & 101	Germ 100 (3)	student must complete a general survey of German grammar
History	Hist 100 & 101 Hist 200 & 201	Hist (unassigned) (3) Hist (unassigned) (3)	
Mathematics	Math 030 Math 100 & 101 Math 120 Math 130, 131 & 132 Math 140 Math 230 & 231	Math 012 (0) Math (unassigned) (3) Math 170 (1½) Math 130 (3) Math 110 (1½) Math 230 (3)	no credit
Philosophy	Phil 100 & 101	Phil 100 (3)	
Physics	Phys 100 & 101  Phys 110 & 111	Phys 101 (3)  Phys 101 (3)	lacking certain topics — not advised for students continuing in the sciences
Political Science	Poli 100 & 101	Poli 200 (3)	
Psychology	Psyc 100 Psyc 100 & 101 Psyc 100 & 200 Psyc 100 & 204 Psyc 100, 101 & 200  Psyc 100, 101 & 204  Psyc 100, 200, & 204  Psyc 100, 101, 200 & 204	Psyc (unassigned) (1½) Psyc 100 (3) Psyc 100 (3) Psyc 100 (3) Psyc 100 (3) & Psyc (unassigned) (1½) Psyc 100 (3) & Psyc (unassigned) (1½) Psyc 100 (3) & Psyc (unassigned) (1½) Psyc 100 (3) & Psyc (unassigned) (3)	

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>
	Psyc 201	Psyc (unassigned) (1½)	
	Psyc 205	Psyc (unassigned) (1½)	
Spanish	Span 100 & 101	Span 100 (3)	
<b>2. Columbia Junior College (Vancouver)</b>			
Anthropology & Sociology	Anth 210 & 220 Soc 210 & 220	Anth 100 (3) Soc 100 (3)	
Biology	Biol 110 & 120 Zool 110 & 120	Biol 150 (3) Zool 202 (3)	
Chemistry	Chem 103 & 104 Chem 110 & 120 Chem 210 & 220	Chem 120 & 111 (4) Chem 124 & 121 (4) Chem 230 & 231 (3)	
Economics	Econ 110 & 120 Econ 210 & 220	Econ 100 (3) Econ (unassigned) (3)	
English	Engl 110 & 120 Engl 210 & 220	Engl 100 (3) Engl 200 (3)	1969-70 course
Fine Arts	Fine Arts 110 & 120	Fine Arts (unassigned) (3)	accepted as an elective; not accepted on BFA without Dept. approval
French	Fren 110 & 120  Fren 210 & 220	Fren 160 (3)  Fren 240 (3)	if Fr 11 or 91 already taken
Geography	Geog 110 & 120 Geog 210 & 220	Geog 101 (3) Geog 203 (3)	Students wishing to major or honour in Geography will be treated individually by Department
German	Germ 101 & 102  Germ 110 & 120 Germ 201 & 202	Germ 100 (3)  Germ 240 (3) Germ (unassigned) (3)	student must complete a general survey of German grammar  placement according to grade and ability
History	Hist 110 & 120 Hist 210 & 220 Hist 223 & 224	Hist 230 (3) Hist (unassigned) (3) Hist 210 (3)	
Mathematics	Math 110 & 125 Math 120 Math 210 Math 220	Math 130 (3) Math 110 (1½) Math 200 (1½) Math 210 (1½)	
Philosophy	Phil 110 & 120	Phil 100 (3)	
Physics	Phys 110 & 120 Phys 210 & 220	Phys 101 (3) Phys (unassigned) (3)	
Psychology	Psyc 110 & 120 Psyc 210 & 220	Psyc 100 (3) Psyc 200 (3)	
Russian	Russ 101 & 102	Russ 100 (3)	
Spanish	Span 101 & 102 Span 210 & 220	Span 100 (3) Span 240 (3)	

### 3. Malaspina College (Nanaimo)

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>
Anthropology & Sociology	Soc 111 & 112	A/S 100 (3)	1969-70 course
Biology	Biol 111 & 112 Zool 221 & 222	Biol 150 (3) Zool 202 (3)	
Chemistry	Chem 111 & 112 Chem 121 & 122 Chem 110	Chem 120 (3) Chem 124 (3) Chem 121 (1)	
Economics	Econ 111 & 112	Econ 100 (3)	
English	Engl 111 & 112 Engl 211 & 212 Engl 222 & 223	Engl 100 (3) Engl 201 (3) Engl 202 (3)	1969-70 course
Fine Arts	Art 111 & 112 Art 101 & 102	Art Hist 100 (3) Art 109 (3)	
French	Fren 111 & 112 Fren 121 & 122	Fren 160 (3) Fren 180 (3)	
Geography	Geog 111 & 112 Geol 111 & 112	Geog 101 (3) Geol 200 (3)	
History	Hist 111 & 112	Hist 242 (3)	
Mathematics	Math 111 & 112 Math 121 & 122	Math 150 (3) Math 130 (3)	
Physics	Phys 111 & 112 Phys 121 & 122	Phys 103 (3) Phys 101 (3)	
Political Science	Poli 111 & 112	Poli 200(3)	1½ unassigned for each course
Psychology	Psyc 111 & 112	Psyc 100 (3)	
Spanish	Span 111 & 112 Span 121 & 122	Span 100 (3) Span 240 (3)	

### 4. College of New Caledonia (Prince George)

Anthropology & Sociology	Anth 211 Anth 220	Anth 100 (3) Anth (unassigned) (3)	
Biology	Biol 110 Biol 111 Biol 211  Bot 111 Zool 211	Biol 150 (3) Biol 150 (3) Biol 306 (1½) & unassigned (1½) Bot 205 (3) Zool 202 (3)	
Chemistry	Chem 110 Chem 111 Chem 112 Chem 211 Chem 212	Chem 120 & 111 (4) Chem 124 & 121 (4) Chem 124 & 121 (4) Chem (unassigned) (3) Chem 230 & 231 (3)	
Economics	Accounting 111  Econ 111 Econ 150 Econ 211	Comm 151 (3)  Econ (unassigned) (3) Econ 200 (3) Econ (unassigned) (3)	if taken in second year
English	Engl 111 Engl 202 Engl 211 Engl 212	Engl 100 (3) Engl 202 (3) Engl 200 (3) Engl (unassigned) (3)	1969-70 course

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>
French	Fren 110	Fren 160 (3)	
	Fren 111	Fren 180 (3)	
	Fren 211	Fren 280 (3)	
	Fren 212	Fren 290 (3)	
Geography	Geog 111	Geog 101 (3)	
	Geog 141	Geog (unassigned) (3)	
	Geog 211	Geog 203 (3)	
	Geog 221	Geog 201 (3)	
	Geol 111	Geol 200 (3)	
German	Germ 110	Germ 100 <i>or</i> 140 (3)	with grade of C or better
	Germ 111	Germ 240 <i>or</i> 260 (3)	with grade of C or better
History	Hist 112	Hist 230 (3)	
	Hist 211	Hist 240 (3)	
Mathematics	Math 111	Math 100 & 110 (3)	no credit
	Math 120	no equivalent	
	Math 121	Math 101 (1½)	
	Math 131	Math (unassigned) (1½)	
	Math 211	Math 230 <i>or</i> 200 & 201 (3)	
	Math 214 Math 232 Data Proc 111	Math 210 (1½) Math 151 (1½)	no credit
Music	Musi 110	Musi 110 (3)	credit subject to individual adjudica- tion by Department
	Musi 112		
Physics	Phys 111	Phys 101 (3)	
	Phys 211 & 212	Phys (unassigned) (3)	
	Phys 213	Phys 211 (3)	
Psychology	Psyc 111	Psyc 100 (3)	
	Psyc 211	Psyc 200 (3)	
Theatre	Theatre 111	Theatre 100 (3)	subject to audition
	Theatre 120	Theatre 120 (3)	

#### 5. Okanagan College (Kelowna, Salmon Arm, Vernon)

Biology	Biol 111 & 121	Biol 150 (3)	
	Biol 211 & 221	Biol (unassigned) (3)	
Chemistry	Chem 111 & 121	Chem 124 (3)	
	Chem 116	Chem 111 (1)	
	Chem 116 & 126	Chem 121 (1)	
	Chem 211 & 221	Chem (unassigned) (3)	
	Chem 212, 222 & 226	Chem 230 & 231 (3)	
Commerce	Bus 111 & 121	Comm 151 (3)	
Economics	Econ 111 & 121	Econ 100 (3)	
	Econ 211 & 221	Econ 200 (3)	
English	Engl 111 & 121	Engl 100 (3)	1969-70 course
	Engl 112 & 122	Engl 100 (3)	
	Engl 211 & 221	Engl 200 (3)	
French	Fren 111 & 121	Fren 160 (3)	
	Fren 112 & 122	Fren 180 (3)	
	Fren 211 & 221	Fren 280 (3)	

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>
Geography	Geog 111 & 121 Geog 211 & 221 Geol 111 & 121	Geog 101 (3) Geog 205 (3) Geol 200 (3)	
German	Germ 111 & 121 Germ 211 & 221	Germ 100 (3) Germ 240 (3)	
History	Hist 111 & 121 Hist 112 & 122 Hist 211 & 221	Hist 242 (3) Hist 230 (3) Hist 210 (3)	
Mathematics	Math 112 & 122 Math 111  Math 211 & 221 Math 212 & 223	Math 130 (3) Math (unassigned) (1½) Math 110 & 210 (3) Math 230 (3)	
Physics	Phys 111, 116 & 121 Phys 211, 221 & 226 Phys 126 Phys 216	Phys 101 (3) Phys (unassigned) (3) no equivalent no equivalent	no credit no credit
Psychology	Psyc 111 & 121 Psyc 211 & 221	Psyc 100 (3) Psyc (unassigned) (3)	

#### 6. Selkirk College (Castlegar)

Anthropology & Sociology	Soc 110 Soc 111 Soc 211	Soc 100 (3) Soc 201 (3) Soc 300 (3)	1969-70 course 1969-70 course
Biology	Biol 110 <i>or</i> 111 Biol 213 Biol 230  Biol 231 & 241 Biol 232 & 242 Biol 240	Biol 150 (3) Biol 306 (1½) Biol (unassigned) (1½) Bot 205 (3) Zool 202 (3) Biol (unassigned) (1½)	
Chemistry	Chem 110 Chem 111 Chem 211 & 240 Chem 212	Chem 120 & 111 (4) Chem 124 & 121 (4) Chem 224 (3) Chem 230 & 231 (3)	
Commerce	Comm 230 & 240	Comm 151 (3)	
Economics	Econ 111  Econ 211	Econ (unassigned) (3) Econ 200 (3)	
English	Engl 111 Engl 210 Engl 211 Engl 230 & 240	Engl 100 (3) Engl (unassigned) (3) Engl 200 (3) Engl (unassigned) (3)	1969-70 course 2nd yr. level; subject to review
French	Fren 111 Fren 112 Fren 212	Fren 160 (3) Fren 180 (3) Fren 280 (3)	
Geography	Geog 130 & 131 Geog 130 & 140 Geog 140 & 141 Geog 141 & 230 Geog 230 & 240 Geol 132 & 142	Geog 101 (3) Geog 101 (3) Geog 205 (3) Geog 201 (3) Geog (unassigned) (3) Geol 200 (3)	

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>
History	Hist 111	Hist 240 (3)	
	Hist 112	Hist 242 (3)	
	Hist 211	Hist 230 (3)	
	Hist 212	Hist 210 (3)	
	Hist 216	Hist (unassigned) (3)	
Mathematics	Math 110	Math (unassigned) (3)	credit granted only if Ma 11 or 91 already taken
	Math 111	Math 130 (3)	
	Math 211	Math 230 (3)	
	Math 212	Math 232 (3)	
	Math 213	Math (unassigned) (2)	Math 213 & 110 must be followed at UVic by Math 100 & credit for Math 140 will be given
Physics	Comp Sc 211	Math 170 & 171 (3)	
	Phys 110	Phys 103 (3)	
	Phys 111 & 112	Phys 101 (3)	
	Phys 200		lab for Phys 211; no separate credit
	Phys 230		lab for Phys 213; no separate credit
Psychology	Phys 231 & 241	Phys 211 (3)	
	Phys 240	Phys (unassigned) (1½)	
Psychology	Psych 111	Psych 100 (3)	
	Psych 211	Psych 200 (3)	
	Psych 212	Psych 220 (3)	
Russian	Russ 111	Russ 100 (3)	
	Russ 112	no equivalent	no credit
	Russ 211	Russ 200 (3)	
	Russ 212	Russ (unassigned) (3)	

### 7. Trinity Junior College (Langley)

Anthropology & Sociology	Anth 101 & Soc 201	A/S 100 (3)	1969-70 course
Biology	Zool 105 & 106 Zool 205 & 206	Biol 150 (3) Zool 202 (3)	
Chemistry	Chem 101 & 102		no credit
	Chem 111 & 112	Chem 120 & 111 (4)	no credit
	Chem 205 & 206		
English	Engl 101 & 102	Engl 100 (3)	1969-70 course
	Engl 205 & 206	Engl 200 (3)	
French	Fren 111 & 112	Fren 160 (3)	no credit if Fr 12 already taken
	Fren 121 & 122	Fren 180 (3)	
	Fren 211 & 212	Fren 240 (3)	
	Fren 221 & 222	Fren 280 (3)	
Geography	Geog 101 & 102	Geog 101 (3)	
	Geol 201 & 202	Geol 200 (3)	
German	Germ 101 & 102	Germ 100 or 140 (3)	with grade of C or better
	Germ 211 & 212	Germ 240 or 260 (3)	with grade of C or better

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>
History	Hist 105 & 106	Hist 240 (3)	
	Hist 111 & 112	Hist (unassigned) (3)	
	Hist 201 & 202	Hist 230 (3)	
	Hist 205 & 206	Hist 210 (3)	
Mathematics	Math 101 & 102	Math (unassigned) (3)	if not taken to complete high school
	Math 105 & 106	Math 100 & 101 (3)	
	Math 121	Math 110 (1½)	
	Math 205 & 206	Math 200 & 201 or 230 (3)	
Music	Musi 111 & 112	Music 110 (3)	
	Musi 121 & 122	Music 100 (3)	
Philosophy Physics	Phil 205 & 206	Phil 100 (3)	
	Phys 121 & 122	Phys 101 (3)	
	Phys 201 & 202	Phys (unassigned) (3)	
Physical Education		no equivalents	no credit
Psychology	Psyc 105 & 106	Psyc 100 (3)	if one only taken, 1½ unassigned
	Psyc 205 & 206	Psyc 220 (3)	
	Psyc 212	Psyc (unassigned) (1½)	
	Psyc 216	Psyc (unassigned) (1½)	
Spanish	Span 101 & 102	Span 100 (3)	<span style="font-size: 2em;">}</span> grade of C+ required
	Span 121 & 122	Span 240 (3)	
	Span 211 & 212	Span 260 (3)	

#### 8. Vancouver City College (Vancouver)

Anthropology & Sociology	Anth 20 & 21	Anth 100 (3)	
	Soc 20 & 21	Soc 100 (3)	
Biology	Biol 16 a & b	Biol 150 (3)	no credit
	Biol 18		
	Biol 23	Biol 300 (1½)	
	Biol 24	Biol 306 (1½)	
	Biol 26	Biol (unassigned) (1½)	
	Zool 21 & Biol 25	Zool 202 (3)	
Chemistry	Chem 15 a & b	Chem (unassigned) (3)	C+ or better required to enter Chem 230
	Chem 15 a & b (honours)	Chem (unassigned) (3)	C+ or better required to enter Chem 224 and/or 233
	Chem 21 & 22	Chem (unassigned) (3)	terminal course
Commerce	Acct 15 a & b	Comm 151 (3)	
Economics	Econ 15 & 16	Econ 100 (3)	credit granted only if student not continuing in Economics
	Econ 17 & 18	Econ (unassigned) (3)	
	Econ 21 a & b Econ 22	Econ 200 (3) Econ (unassigned) (1½)	

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>		
English	Engl 17 a & b	Engl 100 (3)	1969-70 course		
	Engl 18 a & b	Engl (unassigned) (3)			
	Engl 23 & 24	Engl 200 (3)			
	Engl 25 & 27	Engl (unassigned) (3)			
French	Fren 15 a & b	no equivalent	beginners' course; no credit		
	Fren 17 a & b	Fren 160 (3)			
	Fren 19 a & b	Fren 180 (3)			
	Fren 27 a & b	Fren 240 (3)			
	Fren 29 a & b	Fren 280 (3)			
Geography	Geog 15 & 16	Geog (unassigned) (3)			
	Geog 17 a & b	Geog 101 (3)			
	Geog 18 & 19	Geog 203 (3)			
	Geog 17 a plus 18 or 19	Geog 101 (3)			
German	Germ 15 a & b	Germ (unassigned) (3)	*where grade of C or better attained where grade of C or better attained		
	Germ 17 a & b	Germ 100 (3) <i>or</i> *140 (3)			
	Germ 19 a & b	Germ 240 (3)			
	Germ 29 a & b	Germ (unassigned) (3)			
History	Hist 13 & 14	Hist 240 (3)			
	Hist 15 & 16	Hist (unassigned) (3)			
	Hist 22 & 23	Hist 242 (3)			
	Hist 24 & 25	Hist 230 (3)			
	Hist 26 & 27	Hist 210 (3)			
Mathematics	Math 15 a & b	Math (unassigned) (3)	credit granted only if Ma 11 or 91 already taken		
	Math 16 a & b	Math 160 (3)			
	Math 17 a & b	Math 130 (3) <i>or</i> Math 100 & 101 (3)			
	Math 17 c	Math (unassigned) (1)			
	Math 17 d	Math (unassigned) (1)			
	Math 20 & 21	Math 249 (3) <i>or</i> Math 170 & 171 (3)			
	Math 27 a & b	Math 230 (3)			
	Math 29 a & b	Math 232 (3) <i>or</i> Math 110 & 210 (3)			
	Philosophy	Phil 20 & 21		Phil (unassigned) (3)	
	Physical Education	Recr 32		P.Ed 140 (0)	These are all 1969-70 courses, as follows: wrestling track & field rugby badminton basketball basketball volleyball gymnastics gymnastics gymnastics swimming
P.Ed 36		P.Ed 440 (0)			
P.Ed 40		P.Ed 240 (0)			
P.Ed 43		P.Ed 440 (0)			
P.Ed 44		P.Ed 240 (0)			
P.Ed 45		P.Ed 240 (0)			
P.Ed 46		P.Ed 440 (0)			
P.Ed 47		P.Ed 340 (0)			
P.Ed 49		P.Ed 140 (0)			
P.Ed 50		P.Ed. 340 (0)			
P.Ed 51		P.Ed 440 (0)			
P.Ed 56		P.Ed 140 (0)			
P.Ed 60		P.Ed 141 (1½)			
Reer 60		P.Ed 340 (1½)			
Physics		Phys 15 a & b	Phys 101 (3)		
	Phys 25 a & b	Phys 121 (3) <i>or</i> 211 (3)			
	Political Science	Poli 17 & 19	Poli 200 (3)		

<i>Department</i>	<i>College Course</i>	<i>University Equivalent</i>	<i>Notes</i>
Psychology	Psyc 15 a & b Psyc 22 & 23 Psyc 24 a & b	Psyc 100 (3) Psyc (unassigned) (3) Psyc 335 (3)	{ provisional { credit
Spanish	Span 17 a & b	Span 100 (3)	
Theatre	Thea 15 a & b Thea 21 a & b	Thea 120(3) Thea 220 (3)	

## RE-REGISTRATION

### Application for Re-Registration

NOTE: All students should refer to the section in the Calendar in regard to priorities for enrolment in the session 1970-71. See page 34.

1. Students who were registered prior to the 1970-71 Winter Session must submit an **Application for Re-Registration** to the Registrar on or before July 2.
2. Students who have been asked to withdraw from the University in the past because of unsatisfactory performance and who wish to be considered for re-registration must include a letter of appeal addressed to the Admissions Committee, c/o the Registrar, when making application for re-registration.
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 post-secondary level attended and to submit evidence of standing obtained at each.

### Credit for Grade 13 Courses

1. No students may receive credit for Grade 13 courses after he has been granted fifteen units of course credit, either as advanced standing on admission to the University or through completion of University courses or through a combination of these.
2. A student who has registered at the University and has obtained at least nine units of credit will not be given credit for any Grade 13 subjects passed subsequent to his attendance at the University, unless he can supply written evidence to the Registrar that he has undertaken a formal course of study and passed the examinations in the courses for which he is seeking credit. Authority from the Registrar is required before such students may undertake studies through Grade 13.
3. A student who has failed his year at the University and received no credit for work undertaken may be given credit for Grade 13 courses taken subsequently, subject to the regulations under **Admission from Grade 13**, above.

## GENERAL REGULATIONS

1. Students who are accepted by transfer from other institutions must complete all further courses at the University of Victoria. The University will normally not grant a degree for residence of less than two regular winter sessions or the equivalent.
2. At least 60 units of university level courses are required for a Bachelor's degree.
3. At least 21 units must be in courses numbered 300 or higher.
4. No student may take more than 18 units and, without special permission of the Dean or the Registrar, fewer than 15 units, in each winter session. Students are reminded that to qualify for nearly all scholarships, bursaries, prizes and loans a student is required by the terms of the award to undertake a minimum of 15 units of course work in each year.
5. A student who in a winter session takes more than the minimum units required for any one year can have these extra units credited toward his degree.
6. Students may not continue with work in a higher year, unless they take concurrently all courses required to clear conditions or deficiencies in the lower years.

The total of all work taken may not exceed 18 units. They may continue only in subjects for which they have successfully completed prerequisites.

7. Courses for which credit has not been obtained must be repeated, or permissible substitutes taken in the next winter session attended. Except in the case of English 110, no course may be repeated more than once.

8. Normally, all students must complete the final year at the University of Victoria. Under certain circumstances, however, credit may be granted to a student taking his fourth year of study at another institution subject to:

- i. the approval of the Dean of the Faculty concerned;
- ii. the courses taken at another institution being acceptable substitutes for fourth year University of Victoria courses;
- iii. the courses meeting the requirements for the degree sought.

9. Fourth-year undergraduates, with high standing in an Honours Programme, are eligible to apply for admission to graduate-level courses, subject to the approval of the Department or Faculty concerned and subject to clearance with the Faculty of Graduate Studies.

10. A student with standing defective in respect of more than 3 units, although he will not be permitted to register in a higher year, may be allowed to continue by registering in the lower year and by taking courses in accordance with the regulations under **Satisfactory Standing** and **Credit**.

11. Normally, a student may not be registered in two different institutions in the same year. Prior permission to be so registered must be obtained from the Dean of the Faculty concerned or the Registrar.

12. Students in attendance at the University may not register concurrently for extramural or correspondence work to be taken for credit at the university level.

## REGISTRATION

### English Requirement

All students enrolling in First Year are required to write a qualifying examination to test their proficiency in expressing themselves in the English language. Students who fail the qualifying examination are required to complete English 110. Details of the time and place of the examination will accompany the Notice of Admission or Authorization to Re-register sent to each student who is required to write the examination.

1. **Completion of Registration:** In addition to completing the procedures mentioned above under the headings Application for Admission and Application for Re-registration all students in the Winter Session are required to register in person at times announced by the Registrar's Office. Each student, by his Notice of Admission or Authorization to Re-register will be informed of the time and place for registration in person. Sessional fees are payable at the time of registration. No registration will be complete until such fees have been paid.

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.*

2. **Unsatisfactory Standing:** No student with unsatisfactory standing will be permitted to register without the permission of the Faculty concerned.

3. **Registration in 3 units of credit courses:** A student who wishes to register in 3 units or less of credit courses offered during the day or evening must do so *by mail no later than September 8*. Such students are designated as Extension students. See page 301. Early registration is strongly advised. See pages 37 and 50 for information on application for admission. Late registration may be permitted in exceptional cases but on penalty of a late fee of \$25.00.

4. **Deferred Examinations:** If the results of deferred examinations affect the standing of a student, his Authorization to Re-register will not be issued until examination results are available.

5. **Change of Programme:** A student who wishes to transfer to another Faculty within the University should notify the Registrar of his intention as early as possible before his application is due. See page 50.

6. **Change in Registration:** A student desiring to make a change in the courses for which he has registered must apply to the Registrar's Office. The regular course change period extends from September 15 to 25. In the following period up to October 9, a course change requires permission of the instructor in those Faculties which permit such changes, as well as formal notification to the Registrar. All other pertinent changes, including those in address and telephone number, must be reported promptly to the Registrar's Office.

7. **One-Term Courses:** Students must register in September for all courses they intend to undertake during the session. This includes half courses which begin in January. Course changes in the second term are permitted until January 15, however, and require formal notification to the Registrar. In this connection, 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.

A student who has an E in a 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.

8. **Auditing a Course:** A student may be admitted to a certain course as an auditor upon the payment of an appropriate fee. Auditors do not normally participate in the work of the course and may not write examinations or receive credit. See page 59 for fee regulations.

9. **Student Responsibility:** Students are responsible for ensuring that their courses have been chosen in conformity with Calendar regulations. Also, each student is responsible for the completeness and accuracy of his registration. He must ensure that there is no discrepancy between the programme he is following and that recorded in the Registrar's Office. A student may not take courses for which he has not registered, and may not drop courses without permission.

A student who registers in a course for which he has previously received credit or for which he has received equivalent credit on transfer must indicate this by entering DUP (Duplicate) on his registration forms. Such registration, however, will affect the student's eligibility for a supplemental examination or scholarship standing and will be used when calculating standing and grade point average.

Also, a student who registers in a course which carries no credit in his degree programme or Faculty must indicate this by entering FNC (For No Credit) on his registration forms. Such registration will have no effect upon a student's grade point average, eligibility for scholarships or a supplemental examination, or standing.

10. **Medical Requirement:** Students registering for the first time in the Winter Session are required to submit a health history. The necessary form is mailed to each student with his Authorization to Register, and must be completed and mailed to the Student Health Service before registration can be completed. A medical examination is not compulsory except for resident students and those 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 Director of the Student Health Service, may require a student to take a medical examination at any time during his attendance at the University. This measure exists to safeguard the medical welfare of the student body as a whole.

#### CATEGORIES OF STUDENTS

Each student who has been authorized to register in an undergraduate Faculty is designated as one of the following:

- |                            |   |                 |
|----------------------------|---|-----------------|
| 1. Candidate for a degree  | } | Regular student |
| 2. Candidate for a diploma |   |                 |
| 3. Special student         |   |                 |

Students registered in the Faculty of Graduate Studies should refer to categories of students given on page 52.

### PROBATION

A student may, because of a marginal record upon admission, or a poor record during previous attendance, be placed on probation either until Christmas or for the full academic year.

### GRADUATION

Every candidate for a degree must make formal application for graduation. Application for graduation in the spring must be made not later than March 1. Special forms for this purpose are available in the Registrar's Office.

### ATTENDANCE

1. **Attendance at Lectures:** A student is expected to attend all lectures in each course for which he is enrolled. Admission to a lecture or laboratory may be refused by the instructor for lateness, misconduct, inattention or neglect of duty. A student who neglects his academic work, including assignments, may be debarred from the Christmas or the final examinations in a course. (See 6 under **Evaluation of Student Achievement.**)

2. **Absence Consequent on Illness:** Students who are absent because of illness or disability should report to their instructors on return to classes.

### 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, laboratory or practical sessions and tutorials in a course are indicated in the following examples:

2 lectures and 3 hours laboratory per week, both terms.	(2-3; 2-3)
1 lecture and 2 hours laboratory per week, first term only.	(1-2; 0-0)
1 lecture and 2 hours laboratory per week, second term only.	(0-0; 1-2)
2 lectures, 3 hours laboratory and 2 hours tutorial or discussion per week, either term.	(2-3-2)
2 lectures, 3 hours laboratory and 2 hours tutorial or discussion per week, both terms.	(2-3-2; 2-3-2)

### EVALUATION OF STUDENT ACHIEVEMENT

1. Depending on the nature of the subject matter and the wishes of a given Department or Faculty, a variety of examination techniques may be used.

2. At the end of each session, students are awarded a letter grade in each course indicating their level of achievement. The method of determining this letter grade shall be chosen by the instructor from amongst alternative techniques agreed upon by the department. At the beginning of the session the instructor will discuss with students and advise the department of the methods to be used for carrying out evaluation: term and final examinations, papers, reports, essays and other assignments.

3. Examinations in the winter session are held in December and April.

4. Applications for special consideration because of illness or domestic affliction must be submitted in writing to the Registrar not later than two days after the close of

the examination period. In all such cases a medical certificate or other substantiating document must be presented to the Registrar's Office.

5. 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 examination, and students who have not obtained a grade of at least D will neither be permitted to write the examination nor to receive any credit for the course. If 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 non-science courses with laboratory work.

6. In any course which involves term assignments, students may be debarred from writing examinations if the required term work has not been completed to the satisfaction of the department concerned.

7. 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.

#### Senate Regulations for 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 examinations. Invigilators should send unusual cases to the Registrar 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. If a candidate believes there is an error in a paper, he should report it immediately to the invigilator, and, after the examination, report the error in writing to the Registrar. If he has other reason for complaint, he should communicate with the Registrar within 24 hours.
6. A candidate may not leave the examination room without first delivering his 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 hands or rise in their places.
9. Candidates may be called upon by the 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 who suffer domestic affliction before an examination should report the circumstances immediately to the Registrar.
14. In case 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.

### Examination Timetables

Timetables are posted on official University bulletin boards approximately two weeks before the dates announced for the beginning of Christmas and final examinations.

### Examination Results

Statements of final grades will be mailed to students in the graduating class and to other students about the end of May, following granting of authority by the Senate to release grades. First term results are released by instructors, not by the Registrar's Office. Where courses are final at Christmas, instructors are authorized to release grades tentatively on the understanding that grades are subject to final approval by the Senate in May. Instructors are permitted to release final grades to students in their classes who request them as soon as the grade sheets have been forwarded by the department to the Registrar, on the understanding that grades are subject to final approval by the Senate in May.

### Review of an Assigned Grade

Students may not have access to final examination papers without the permission of the Department or Faculty concerned and the Registrar.

Reviews, where permitted by the Faculty concerned, are governed by the following regulations:

1. Any request for a review of an assigned grade, other than for a supplemental examination (for which a request for a review will not be granted) must reach the Registrar within two weeks after the announcement of final grades and must be accompanied by a fee of \$7.50 for each course concerned, which will be refunded only if the grade is raised.

2. When applying for a review, the applicant must state clearly in writing why he believes his course deserves a grade higher than it received; pleas on compassionate grounds should not form part of the appeal. If the basis of an appeal depends, in part, on term work, any essays or assignments that have been returned to the student should be submitted with the letter of appeal. Prospective applicants should note that, if any examination paper is involved, the paper is read at least a second time before a grade of E or F is recorded. For that reason, an applicant who is eligible for a supplemental examination should prepare for the examination since a change in grade is unlikely and since the result of the review may not be available before the time of the supplemental examination.

3. Reviews will not be permitted in more than 6 units in a full programme in one Winter Session, and in 3 units in a partial programme of 9 units or less or in the work of one Summer Session.

4. During the session, if a student feels that a grade awarded for term work is unfair, he should discuss the matter informally with the instructor concerned. Failing that, he should appeal directly to the Department Head or Chairman or to the Dean of the Faculty.

5. Students are advised that there can be no appeal against that part of a final grade which is based on oral examination, self-evaluation or class participation.

## GRADING SYSTEM

The following letter grades are used in evaluating student achievement:

Letter Grade	Grade Point Value	Class
A+ A, A-	9, 8, 7	First Class
B+, B, B-	6, 5, 4	Second Class
C+, C, D	3, 2, 1	Pass
E	0	Failure (conditional supplemental)
F	0	Failure (no supplemental)
N	0	Failure (did not write final examination or otherwise complete the work of the course by the end of the session.)
COM	—	Completed (where no grade is awarded.)
INC	—	Incomplete (where graduate work continues through two or more sessions.)

If a student falls ill during an examination or misses an examination because of illness or domestic affliction, this must be brought to the attention of the Registrar. A physician's certificate or other substantiating document must be submitted to the Registrar within two days of the close of the examinations. The Registrar will communicate with the Instructor in regard to his assessment of the student's performance.

Please note deferred examinations are granted only where final examinations are involved. Deferred examinations are normally held in August. The grade E is not granted to Summer Session or Extension students, who are not entitled to write supplementals.

The table below is provided for the convenience of students who began their work under the former marking system, the University having adopted the above grading system effective September 1965.

OLD Mark/150	NEW Letter Grade	Grade Point Value
less than 60	F	0
60 - 74	E	0
75 - 81	D	1
82 - 89	C	2
90 - 96	C+	3
97 - 104	B-	4
105 - 111	B	5
112 - 119	B+	6
120 - 126	A-	7
127 - 134	A	8
135 - 150	A+	9

## STANDING

Undergraduates taking at least 15 units of work, and obtaining a grade of at least D in each subject, will be placed in one of the following categories on the basis of general average:

**First Class**, a grade point average of 6.5 or higher;

**Second Class**, a grade point average of 3.5 or higher;

**Pass**, a grade point average of 1 or higher.

## CREDIT

Beginning with the 1969-70 session, a student is entitled to receive credit for any course in which he attains a final grade of D or higher, provided that he has not previously received credit for the same course or its equivalent.

## SATISFACTORY STANDING

### Winter Session

1. A student taking more than 9 units in the winter session will achieve satisfactory standing only if, as a result of his final grade at the end of the session, he passes in courses totalling at least 9 units in value.
2. A student taking 9 units or fewer in the winter session will achieve satisfactory standing only if, as a result of his final grades at the end of the session, he passes in all his courses.

### Summer Session

1. A student taking more than 3 units in summer session will achieve satisfactory standing only if, as a result of his final grades at the end of the session, he passes in courses totalling at least 3 units in value.
2. A student taking 3 units or fewer in summer session will achieve satisfactory standing only if, as a result of his final grades at the end of the session, he passes in all his courses.

## WITHDRAWAL

The Board of Governors and the Senate may require a student to withdraw from the University at any time for unsatisfactory conduct, for failure to abide by regulations, or for unsatisfactory progress in his programme of studies or training.

Any student who after registration decides to withdraw from the University must report first to the Director of the Counselling Centre and then to the Registrar. He will be required to obtain clearance from the University, to the satisfaction of the Registrar, before being granted **Honourable Dismissal** or recommended, where applicable, for refund of fees.

### Withdrawal for Unsatisfactory Standing

1. A student who, in the course of his academic career, fails to achieve satisfactory standing in any one session, will, if priorities subsequently established permit, be authorized to re-register at the University and will be placed on probation.
2. A student who, in the course of his academic career, fails to achieve satisfactory standing in any two academic sessions, whether they be consecutive or not, will normally be required to withdraw for a period of not less than one year. A student who has been required to withdraw must apply in writing through the Registrar to the Senate Admissions Committee for authorization to re-register at the University.
3. If a student re-registers under 2, he must achieve satisfactory standing in all subsequent sessions, otherwise he will be required to withdraw permanently.
4. Any student whose academic record, as determined by the grades assigned in the first term, is unsatisfactory, may, upon the decision of the Faculty and on notification by the Registrar, be required to discontinue attendance for the remainder of the session. A student so required to withdraw may appeal to the Senate for a review of his case by lodging a written appeal with the Secretary of Senate.

## SUPPLEMENTAL EXAMINATIONS

1. (a) In the winter session no candidate will be granted supplementals in more than 3 units. A candidate will be granted a supplemental in a subject which he has

taken during the session provided (i) he has written the final examination and has obtained a final grade of E, and (ii) he has obtained (as a result of the final examinations) at least 12 units of credit in that session. A grade of E confers only conditional supplemental standing and is not a guarantee of supplemental eligibility. Students in the Faculty of Education taking a *required* 18 unit year may write up to 6 units of supplementals. A student who obtains a grade of F in a given subject may not write a supplemental examination in that subject.

(b) **No supplementals will be granted to Summer Session and Extension students.**

2. If a grade of E is obtained in a December final, the student has the option of repeating the first term course in the second term if it is offered, or, if eligible, writing a supplemental examination in August if he wishes a credit for the course.

3. A student in the final year of a degree programme taking only 12 units of course work will be granted supplemental privileges in 3 units, at the discretion of the Dean concerned and the Registrar, provided the student has written the final examination and obtained a grade of not less than E in the course for which supplemental privileges are granted.

4. If a supplemental granted in a course is passed with a grade of at least D, credit will be given for the course. In the computation of the overall average in the work of a session or for a degree, the grade in a supplemental, if passed, will be considered as D.

5. Similarly, the overall average will not be changed if a subject already passed is written for higher standing.

6. In all but the Final Year a candidate who has been granted a supplemental may write it only once. If he fails, he must repeat the course or take a permissible substitute. In the Final Year he may write it twice.

7. Supplemental examinations, covering the work of both the first and second terms, will be held in August.

8. Applications for supplemental examinations, accompanied by the necessary fees, must be in the hands of the Registrar by July 1.

9. If a student, because of exceptional circumstances, is permitted to postpone a supplemental beyond the first regular supplemental examination period, he will be responsible for the content of the course as currently offered. If the course is not offered or has been discontinued, the supplemental privilege may be cancelled. Attention is also drawn to the section under **Satisfactory Standing**.

Supplemental examinations may be written at the following B.C. centres: Cranbrook, Dawson Creek, Kamloops, Kitimat, Ocean Falls, Penticton, Powell River, Prince George, Prince Rupert, Trail, Vancouver; and at Whitehorse, Y.T. Other centres outside of British Columbia are restricted to universities or their affiliated colleges.

The fee for each supplemental examination written at the University is \$7.50; at a regular outside centre, \$12.50. In the event that a candidate does not appear for an examination, the refund will be \$5.00 only. Conditions governing refunds appear on page 63 under "Other Fees and Charges."

#### TRANSCRIPT OF ACADEMIC RECORD

On request of the student, a transcript of a student's academic record will be mailed direct to the institution or agency indicated in the request. Each transcript must include the student's complete record at the University. Since standing is determined by the results of all final grades in each session, transcripts are not available for first term grades.

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

No transcript will be issued to or for a student who has not made arrangements satisfactory to the Bursar's Office to meet any outstanding indebtedness.

**Granted Honourable Dismissal** indicates that the student is in no disciplinary difficulty at the time the transcript is issued; the term has no reference to academic status.

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

Fees for transcripts of academic record: one copy free of charge at the completion of each year; three copies free of charge following graduation; additional copies supplied at the rate of 2 copies for \$1.00. Free copies may not be accumulated.

## FEES

### General

1. The University reserves the right to change fees without notice.
2. Fees are not transferable from one session to another.
3. Fee amounts and methods of payment are listed in the following paragraphs. In general however, all fees, including those for student organizations, are payable at the time of registration.
4. Because it is the responsibility of the student to calculate and pay his fees in accordance with the following regulations, the University does not issue invoices.

### Tuition Fees

#### 1. Undergraduate Programmes:

Winter Session:	12 units or more — \$428.00 for the session less than 12 units — \$ 30.00 per unit
Summer Session	\$30.00 per unit
La Maison Française:	\$160.00
Internship programme:	\$428.00
Industrial Education Programme:	Students who are taking courses at the Division of Industrial Education at Burnaby will be assessed fees in accordance with the schedule published by The University of British Columbia (\$100 per 3 unit course).

#### 2. Graduate Programmes:

Master's programme:	First year — \$450.00 Second year — \$150.00
Doctoral programme:	First year — \$450.00 Second year — \$450.00
Part-time and special students:	\$30.00 per unit
Qualifying student:	\$30.00 per unit (not applicable to above degree fees.)

In the case of students taking a Doctor's degree after a Master's degree, both degrees taken at the University of Victoria, the total tuition fee for both degrees shall not exceed \$900.00.

Tuition fees cover all prescribed courses of study at the University of Victoria, direction and supervision of research, the use of laboratory and library facilities, and examinations. Tuition fees do not cover the cost of prescribed field trips, travel in connection with research, or the typing or binding of theses and dissertations.

3. Auditors will pay one-half of regular tuition fees, but in certain courses of a practical nature where auditors participate in all aspects of the work (except the examinations), full fees must be paid.

### Student Organizations — Fees Authorized by the Board of Governors

1. The Alma Mater Society fee of \$32.00 is required at the time of registration from all students registered in an undergraduate Faculty or School for 7 or more units in the Winter Session. Students registered for more than 3 units and less than 7 units are required to pay a fee of \$12.00. Enquiries with respect to this fee should be directed to the Alma Mater Society.

2. The Student Union fee of \$2.00 is required at the time of registration from all undergraduate students registered in the Summer Session. Students registered in the Internship programme are required to pay this fee at the time of registration (in respect of their first Summer Session), and again with their second tuition fee instalment (in respect of their second Summer Session). Enquiries with respect to this fee should be directed to the Alma Mater Society.
3. The Graduating Class fee of \$10.00 is required at the time of registration from all students registered in the Winter Session in the final year of a programme leading to a Bachelor's degree and who are eligible to graduate at the end of the session. Students who are in their final year but who are not eligible to graduate at the end of the session may participate in Graduating class activities if they pay the Graduating Class fee. This fee is for the support of Graduating Class activities and enquiries with respect to the fee should be directed to the Alma Mater Society.
4. The Graduate Students' Society fee of \$20.00 is required once each year at the time of registration from all students registered full-time in the Faculty of Graduate Studies. Part-time graduate students are required to pay a fee of \$5.00. Students who continue in master's and doctoral programmes beyond the second year will be assessed the Graduate Students' Society fee yearly until they cease to be registered students in the Faculty. Enquiries with respect to the fee should be directed to the Graduate Students' Society.

#### Other Sessional Fees — Undergraduate Faculties

1. An evaluation fee of \$10.00 is required from applicants whose academic records, in whole or in part, originate outside British Columbia. The fee must accompany the Application for Admission, or must be paid when evaluation of documents is requested prior to application being made. The fee is not refundable and is not applicable to tuition fees.
2. A late application fee of \$25.00 will be required of all students who fail to submit their applications for admission or re-registration together with all supporting documents at the time required. (See pages 37 and 50). However, no student will be required to pay this fee if he also incurs the fee for late registration mentioned below.
3. A late registration fee of \$25.00 will be charged to any student who registers after the appointed day. Late registration will normally take place only during the first week of lectures and the late fee will be the basic \$25.00, plus \$5.00 per day after the first day of lectures.
4. A reinstatement fee of \$10.00, additional to all other fees, must be paid by students who wish reinstatement after the cancellation of their registration. Reinstatement will depend upon the approval of the student's Dean and the Registrar.
5. A registration fee of \$10.00 in each session is required from Students registered in the Faculty of Education Industrial Education Major programme and whose tuition fees are paid by the Department of Education.

#### Other Sessional Fees — Faculty of Graduate Studies

1. An application fee of \$5.00 is to be paid at the time of application for admission.
2. A registration fee of \$5.00 is to be paid annually while a student is registered in the Faculty of Graduate Studies.
3. A reinstatement fee of \$100.00 must be paid by any student who wishes reinstatement after allowing his registration in the Faculty of Graduate Studies to lapse without permission.

#### Payment of Fees

1. All fees are payable at the time of registration. However, students registering in the Winter Session and the Internship programme may pay one-half of their *tuition fees* at the commencement of the Second Term. This privilege is not extended in respect of courses given in one term only.

The first fee instalment must therefore include, as a minimum, the following amounts:

- one-half of tuition fees
- all applicable student organization fees
- all application, registration, and late payment fees assessed.

2. Fees should be paid, in person or by mail, to the Accounting Office.
3. Students are advised to pay fees by certified cheque payable to "University of Victoria." Those students who do not pay by certified cheque, and whose cheques are returned by their banks, will be charged a fee of \$3.00.
4. A late payment fee, additional to all other fees, will be charged when fees (or the current instalment thereof) are not received in full by the following dates:

Winter Session:

First instalment — September 25, 1970

Second instalment — January 15, 1971

Internship programme:

First instalment — at the time of registration

Second instalment — January 15, 1971

This fee is 10% of the unpaid balance; minimum \$5.00, maximum \$20.00. Appeals against this fee must be made in writing to the Late Payment Fee Appeals Committee and received within fourteen days from the imposition of the fee. Appeals will not be considered unless the student's current fee instalment, including late payment fee, has been paid in full.

5. If first and second fee instalments, including late payment fees, are not received in full by October 31, 1970, and January 31, 1971, respectively, the registration of students concerned may be cancelled.
6. Students who claim that their fees will be paid directly to the University by scholarship award, government department or other outside agency, must produce documentary evidence at the Accounting Office. When this is not done by the prescribed payment dates, late payment fees are applicable.

#### Refund of Fees

1. Students who withdraw from a course should notify the Registrar immediately in writing. Otherwise, full fees will be assessed and applications for re-registration may not be accepted until accounts are settled in full.
2. No refund of fees will be made to graduate students except in cases of withdrawal due to extenuating circumstances such as illness or domestic affliction. If refunds are allowed they will be made in accordance with the schedules in 3. or 4. below, as applicable. However, master's candidates completing the degree requirements in the first half of the second year will be exempt one-half of the second year's tuition fees.
3. Undergraduate students who withdraw from Winter Session courses will receive a refund of tuition fees paid, less the following charges:

On or before September 25, 1970 — \$10.00

October 2, 1970 — 20% of sessional fees

October 9, 1970 — 26% of sessional fees

October 16, 1970 — 32% of sessional fees

October 23, 1970 — 40% of sessional fees

December 31, 1970 — 50% of sessional fees

January 8, 1971 — 56% of sessional fees

January 15, 1971 — 63% of sessional fees

January 22, 1971 — 70% of sessional fees

No refunds of tuition fees will be made after January 22, 1971.

Students registered for more than 3 units in the Winter Session who withdraw from the University or reduce their programme to 3 units will receive a refund of Alma Mater Society fees paid, less the following charges:

On or before	October 2, 1970	— \$3.00
	October 9, 1970	— \$4.00
	October 16, 1970	— \$5.00
	October 23, 1970	— \$6.00

No refunds of these fees will be made after October 23, 1970.

- Undergraduate students who withdraw from Summer Session courses will receive a refund of tuition fees paid, less the following charges:

On or before	July 2, 1971	— \$10.00
	July 9, 1971	— 20% of sessional fees

No refunds of tuition fees will be made after July 9, 1971.

Students who withdraw from the University on or before July 9, 1971, will receive a refund of the Student Union fee.

- Students registered in the Faculty of Education Internship Programme who withdraw from the programme will receive a refund of fees paid, less the following charges:

Before the initial Summer Session — \$ 90.00

Before the Second Term of the  
Winter Session — \$214.00 plus \$2.00 Student Union fee

Before the second Summer Session — \$304.00 plus \$2.00 Student Union fee

No refunds will be made after the commencement of the second Summer Session in the programme.

#### Scholarships, Fellowships, Bursaries and Loans

- Except where the donor directs otherwise, the proceeds of scholarships, fellowships and bursaries issued by or through the University will be applied against the total sessional fees. If the amount of the award or awards exceeds the unpaid total sessional fees, the excess balance will be paid to the student.
- Students who require financial assistance (including that granted under the Canada Student Loan Plan) in order to pay sessional fees should apply to the appropriate agency in sufficient time to receive such assistance by the prescribed payment dates. Late payment fee regulations are applicable where this has not been done.
- Certain scholarships and bursaries are paid by cheque drawn in favour of the student. If these cheques are not endorsed and applied against fees by the prescribed payment dates, the regulations covering late payment will apply.
- Students seeking advice about scholarships, fellowships, prizes, bursaries and loans should direct their enquiries to the Financial Aid Officer.

#### Other Fees and Charges

- Students registered in Chemistry courses are required to purchase a laboratory ticket for \$3.00. These tickets should be purchased at the Accounting Office before the commencement of classes.
- A fine of \$2.00 will be imposed for infraction of University parking and traffic regulations. Fines paid prior to 4:00 p.m. of the second working day following the issue of the Traffic Violation ticket will be reduced in the amount of \$1.00. Fines will be imposed for infraction of Library regulations in amounts determined by the Head Librarian.

Fines imposed prior to November 1, which, together with any previous assessed penalties, remain unpaid at November 30, will be increased by \$1.00.

Fines imposed prior to January 1 which, together with any previously assessed penalties, remain unpaid at January 31, will be increased by \$1.00.

Fines imposed prior to March 1 which, together with any previously assessed penalties, remain unpaid at March 31, will be increased by \$1.00.

Fines imposed prior to May 1 which, together with any previously assessed penalties, remain unpaid at May 31, will be increased by \$1.00.

These increases will be accumulated so long as a fine remains unpaid; however, no fines shall be increased by more than \$4.00. Transcripts will not be issued, and re-admission to University may be denied to those who have not paid outstanding fines and penalties.

3. Rates for board and lodging in the University residences are listed on page 67.

4. Regular supplemental examination, per paper .....\$ 7.50  
 Supplemental examination at regular centres, per paper ..... 12.50  
 Supplemental examination at centres outside of British Columbia ..... 12.50

Supplemental examination fees must be paid when application for examination is made and not later than July 1. In the event that a candidate does not appear for an examination, a refund will be authorized only if, within 10 days after the scheduled examination, the candidate submits to the Registrar an adequate explanation for failure to write the examination. If the refund is made, it will be \$5.00.

Full refunds will be granted only to those students who cancel their application by July 15.

Review, per course, payable with application .....\$ 7.50

Fee for transcripts of academic record: one copy free of charge at the completion of each year; three copies free of charge following graduation; additional copies supplied at the rate of 2 copies for \$1.00. Free copies may not be accumulated.

5. All motor vehicles, driven or parked on campus between 7:00 a.m. and 6:00 p.m. Monday through Friday and between 7:00 a.m. and 12:00 noon Saturday, by members of Faculty or Staff, Students, and by persons whose normal place of employment is on campus, must be registered with the University.

Parking permits and regulations are obtainable at the Traffic and Security Office.

The following parking fees become effective September 1, 1970.

	<i>Reserved</i>	<i>General</i>
Permits issued prior to December 31	\$15.00	\$5.00
Permits issued between December 31 and April 30	9.00	3.00
Permits issued after April 30	2.00	2.00
Extra permits for additional cars or replacements	1.00	1.00

Parking fees shall cover the period from the date of issue to the following August 31, except for the following special permits:

Conference (7 days or less)	\$1.00
Conference (more than 7 days)	2.00

# ACADEMIC SERVICES

## LIBRARY

Since good books are essential to sound learning, the Library is often referred to as the centre of academic life on the campus. To keep pace with the growth and expansion of the University of Victoria, its Library has undertaken an accelerated programme of development and service. By the spring of 1970, the book collection totalled approximately 400,000 volumes, and was growing at a rate of over 50,000 volumes annually. The Library regularly receives over 5,000 periodicals, and has, in addition, a substantial collection of long-playing records.

Under the Library's open-stack system, students have access to all books in the collection. Well-trained staff members are always available to help the student make the fullest use of the Library's collection. Regulations governing loan periods, fines and hours of service are displayed prominently in the Library and published in the *Guide to the McPherson Library*. Full Library privileges are extended to all University of Victoria students, faculty and staff, and may be granted to other persons upon application.

## COUNSELLING CENTRE

### Counselling Services

The objective of the Counselling Centre is to help each student to obtain the maximum benefit from his University experience. Toward this end, a comprehensive range of counselling services is available throughout the year from a fully qualified staff of professional counsellors.

### Educational-Vocational Counselling

The Counselling Centre assists University students and potential University students to plan a programme of courses. Sometimes students are uncertain about which courses to take or toward which career to prepare. Counsellors help students to make decisions about their future. Vocational tests and other assessment devices are available to further a student's understanding of himself. The Counselling Centre maintains a complete library of vocational information and an extensive collection of calendars from Canadian and American universities, colleges and professional schools.

### Personal Counselling

In addition, the Counselling Centre provides an opportunity for a student to explore with a counsellor any topic or situation which is causing concern. Some of the personal problems which might be resolved through counselling are general dissatisfaction, inability to make a decision, problems in relating to fellow students, or anxiety. Group counselling services are available, and some students find it helpful to meet together under the sponsorship of a counsellor. Students decide whether they prefer individual appointments or group counselling.

### Additional Services

Counsellors meet either individually or in groups with Grade 12 senior secondary school students to provide information about University life, courses or career possibilities. The Counselling Centre also assigns students enrolled in the Faculty of Arts and Science or the Faculty of Fine Arts and who are new to the University to a faculty advisor. In many cases the faculty advisor is the instructor for one of the classes in which the student is enrolled. Faculty advisors provide a contact between the student and the academic life of the University. They are available to assist students on any matter for which they would like advice or information. The Counselling Centre is authorized to administer the *Scholastic Ability Test* and the *Achievement Test* of the College Entrance Examination Board, and the *Test of English as a Foreign Language*, the *Graduate Record Examination*, the *Miller Analogies Test*, the *Law School Admission Test*, the *Dental College Admission Test*, and the *Medical College Admission Test*. The Counselling Centre, which is located in the Clearihue Building, may be consulted for additional information.

## Reading Study Skills Programme

In order to make the most of his academic potential, a student must know and apply to his work, various techniques of reading, listening, organizing material studying and writing essays and examinations. During each term, the Reading and Study Skills Centre offers an eight-week non-credit course, whose aim is to assist students to develop or improve their skill in using these techniques. Provision is made for those students who so require to work on vocabulary improvement under supervision subsequent to taking the Reading and Study Skills Course.

A thirty-hour "Transition Course" is provided just prior to registration for students who are entering University for the first time. The aim is to develop reading and study skills, and to learn how to use the library effectively before the pressure of classes begins.

Students who have problems connected with organization, study, or writing examinations are encouraged to discuss them with the staff of the Reading and Study Skills Centre.

## PLACEMENT OFFICE

### Canada Manpower Centre:

The Student Placement Office, operated by the Canada Manpower Division, Department of Manpower and Immigration, is located on the campus. It is operated on a full-time basis, open Monday through Friday.

Graduates, graduands and undergraduates seeking permanent employment are urged to register before the end of October with the placement office. Early registration is recommended because many employers complete their recruiting visits in early November.

Students seeking part-time work during the academic year or temporary work during Christmas holidays are requested to register early with the placement office. Those students seeking temporary summer work only, need not register until January.

Notice regarding employment opportunities of all kinds will be posted conspicuously in campus buildings. These notices will include information on Federal and Provincial Government vacancies, as well as those in industrial and other private organizations.

Students who wish to arrange for an interview with a Student Placement Counsellor or an employer's representative are invited to make an appointment.

## UNIVERSITY BOOKSTORE

The Bookstore, located in the Campus Services Building, was established for the convenience of students, and has effected a considerable saving to them in time and money. It is prepared to supply all the textbooks required for the various courses offered, and to accept special orders for books other than texts.

The Bookstore houses a collection of some 4,000 carefully selected titles in paperback editions which provide informative supplementary reading and valuable reference material for essay writing.

Also available are lab. coats, slide rules, briefcases, and art supplies as well as all general supplies such as notebooks, looseleaf refills, ballpoint pens, etc.

## COMPUTING FACILITIES AT THE UNIVERSITY OF VICTORIA

The University of Victoria provides the largest computer on Vancouver Island — the IBM System/360 Model 44. The system provides rapid input (1000 cards/minute), rapid output (1100 lines/minute printer), large internal storage (32,000 words or 131,000 bytes), plus four magnetic tape drives, and three disk drives.

Expansion plans for 1969 - 70 include:

- (a) increased storage to 64,000 words.
- (b) higher speed tapes — to transfer data at 60,000 characters per second (versus 30,000 characters per second on the original system).

- (c) more disk files — adding three disk drives.
- (d) introduction of four (4) IBM 2260 visual display terminals to begin development of time sharing systems.

The computing system is used extensively for Faculty research in many areas including Physics, Biology, Chemistry, Psychology, Education, and others. The system is also used by students engaged in programming in Computer Science studies. Other activities include handling routine administrative work for the office of the Registrar, the Accounting office, and the Library.

The Computing Centre also provides computing assistance to the Dominion Astrophysical Observatory, the Forest Research Laboratory, Defense Research Establishment Pacific, the Fisheries Research Board — Biological Station, Frozen Sea Research Group, Pacific Oceanographic Group, as well as the Greater Victoria School Board, several municipal offices and several groups of consulting engineers.

Students in all disciplines are encouraged to learn to use the computing system before their third year of studies. Credit courses and non-credit courses are available for students and expert help is available from the staff of professional programmers in the Computing Centre.

Those who are planning a career in computing may be eligible for further training by summer employment in the Computing Centre, by part-time employment in the Centre during the Winter Session, or by employment as Student Assistants to Faculty members.

# MEDICAL, HOUSING AND FOOD SERVICES

## UNIVERSITY ACCOMMODATION

The University provides accommodation for 306 students in Craigdarroch College and 285 students in Lansdowne College.

Application forms for the residences can be obtained from the Housing Office (Office of the Co-ordinator of Women's Activities). Students are requested to submit residence applications as early as possible. Assignment of rooms will be completed July 31 for students who have returned their completed application forms (including a caution money deposit of \$25). All assignments are conditional upon acceptance of the student to the University by the Director of Admissions.

Students are urged to note that the caution money deposit will be forfeited for any of the reasons listed below.

1. If the student leaves during either term.
2. If the student decides not to live on campus and fails to notify the Housing Office (Office of the Co-ordinator of Women's Activities) by August 25.
3. If first term payment for board and lodging is not received at the Accounting Office by the day of registration in person.
4. If the student has not arrived to occupy assigned accommodation within the first week of lectures. Exceptions can be made if the Housing Office (Office of the Co-ordinator of Women's Activities) is notified in writing before the first day of registration, although board and residence will be assessed from the opening of the term.
5. If the student is responsible for damage to buildings and equipment (over and above normal wear and tear), an assessment will be deducted from the \$25.

Assignment will be cancelled for failure to make first term board and lodging payment on or before the day of registration in person, or for failure to notify of late arrival. Notification must be received in writing by the first day of registration.

Students who have been assigned residence accommodation may occupy their rooms from the afternoon of the day before registration. Meal passes will be issued to become effective for dinner on the day before the first day of lectures. During registration week meals may be obtained on Campus at current rates.

During the 1970-71 Winter Session the rates will be as follows:

Double room: First term \$326.00; Second term \$402.00; Total \$728.00

Single room: First term \$354.00; Second term \$436.00; Total \$790.00

Students are required to make their first term payments in full on or before the day of registration in person, and the second term payments before December 15, 1970.

## OFF-CAMPUS ACCOMMODATION

A list of private homes where students may obtain full board and room, or light housekeeping accommodation may be obtained from the Housing Office (Office of the Co-ordinator of Women's Activities). While the University authorities make every effort to maintain an up-to-date listing of available homes, there is no guarantee that suitable accommodation will be found by the University for every student who applies. Students are discouraged from attempting to work for all or a portion of their board and room payment. The cost of full board and room varies from about \$80 to \$100 a month. Students should ascertain whether they are being offered two or three meals a day at the price quoted. For winter accommodation listed with the University, one week's notice is the accepted term of notice prior to October 31. After this date a full month's notice is required in order to leave private accommodation, otherwise students can expect to forfeit a month's rent.

Students are urged to consult the University Housing Office (Office of the Co-ordinator of Women's Activities), before they accept accommodation obtained through newspaper advertisements.

### **Cafeteria**

The University maintains a cafeteria, a coffee shop, and a central Commons Block where meals may be obtained at reasonable prices.

### **UNIVERSITY HEALTH SERVICE**

The Health Service is not a teaching department, being maintained solely for the benefit of students who may require medical care and advice, especially those whose homes are not in Victoria or vicinity, or who have no regular family doctor.

A nurse is in attendance from 8:30 to 5:00 p.m. Monday to Friday and 10.00 a.m. to 12 noon on Saturday. A doctor is in attendance for consultation 10:30 a.m. to 1:30 p.m., and 3:00 p.m. to 5:00 p.m., Monday to Friday. It should be noted that all consultations are held to be entirely confidential. Records are not available to any other person, and information contained in them will be released only at the request of the student.

Students are urged to bring any problems of University life to the Health Service before such problems have developed to a serious stage. Consultative psychiatric service is available if required.

All students are advised to have medical insurance. Those students who are not covered by their parents' plan are advised to enrol in the B.C. Medical Plan. If ineligible for the B.C. Medical Plan, students should consult the Student Health Service regarding the University Health and Accident Plan.

#### **Routine Regarding Sickness and Injury:**

1. Students developing any illness are expected to report to the Health Service on the first day of illness.
2. Students absent three days or more on account of illness are advised to report with a medical certificate.
3. Students unable to write an examination because of illness should be in touch with the Health Service; and if absent from an examination they must submit to the Registrar a certificate obtained from a doctor during the illness within two days of the close of examinations.
4. Students are reminded that those suffering any injury while on the campus should report for first aid at the Health Service.

# STUDENT AFFAIRS

The officer responsible for Student Affairs (appointment pending) serves as the liaison between the Alma Mater Society and the University.

## ALMA MATER SOCIETY

The Alma Mater Society is the legally incorporated society of students at the University of Victoria. It is the recognized means of communication between students and the faculty, administration, and the outside community. This is not to suggest that individual students cannot talk to faculty or administrators, in fact you are encouraged to do so — they really are approachable.

The Alma Mater Society talks officially to the administration when things get rough; it also informs them about what students are doing. It is felt that through discussion and communication students can best achieve the kind of university they want.

The governing body of the Alma Mater Society is the Representative Assembly which consists of 41 elected members. A portion of the Assembly makes up a 17 man Executive Council, which is the executive and administrative arm of the Assembly. There are 9 administrative positions in the Executive Council which are:

1. *The President:*
  - (a) Presides at general meetings of the Students' Union.
  - (b) Presides at meetings of the Executive Council.
  - (c) Performs all other duties of a President as outlined in Robert's Rules of Order, latest edition.
  - (d) Acts as spokesman for the Alma Mater Society.
2. *The Vice-President:*
  - (a) Assumes all responsibilities of the President in the absence of the President.
  - (b) Assists the President in his duties.
  - (c) Assumes all other responsibilities that may be designated by the Executive Council and the Representative Assembly.
3. *The Treasurer:*
  - (a) Acts as Chairman of the Finance Committee.
  - (b) Prepares and presents to the Representative Assembly and the Annual Meeting a statement of the financial affairs of the Society during his term of office.
  - (c) Is empowered to request a full financial report from subsidiary organizations of the Society.
  - (d) Is responsible to the Representative Assembly for all vouchers, requisitions, petty cash payments and purchase orders issued in the name of the Society.
4. *The Communications Director:*
  - (a) Acts as Chairman of the Electoral Committee.
  - (b) Is responsible for the recording of the minutes of the Executive Council and the Representative Assembly, and for the distribution of appropriate minutes and documents to the Speaker and members of the Representative Assembly.
5. *The Academic Affairs Chairman:*
  - (a) Is responsible for the initiation and co-ordination of Society programmes of academic and curricular innovation.
6. *The Activities Co-ordinator:*
  - (a) Acts as Chairman of the Activities Council.
  - (b) Is responsible, through the Activities Council, for the co-ordination and booking of all major Society sponsored events.

7. *The Student Campus Development Director:*

- (a) Officially represents the Alma Mater Society in all matters concerning the Student Union Building and the physical development of the University campus.
- (b) Acts as senior student representative on the Student Union Building Management Board.

8. *Extramural Athletics Chairman:*

- (a) Concerns himself with varsity sports which involves competition with other universities (as defined in the Athletic Directorate Constitution).

9. *Intramural Athletics Chairman:*

- (a) Is in charge of sports which may happen between various groups in the academic community (as defined in the Athletic Directorate Constitution).

The nine administrative officers are elected late in January. Their election is followed by elections for 16 members of the Representative Assembly in mid-February. These 16 members are elected on the following basis:

- (a) 8 students registered in 1st year.
- (b) 4 students registered in 2nd year.
- (c) 4 students registered in third year or above.

Both groups elected during this time take office March 1. In October another set of elections are held when 16 more representatives are voted into office. They are selected on the following basis:

- (a) 4 students registered in 1st year.
- (b) 6 students registered in 2nd year.
- (c) 6 students registered in third year or above.

This group takes office October 20. The reason for splitting the elections as they are is to provide for a periodic influx of new ideas, and to add continuity by ensuring that there are always some experienced people on the Assembly.

*President* 1970-71: Mr. Robert McDougall  
1969-70: Mr. Norman Wright  
1968-69: Mr. Frank Frketch  
1967-68: Mr. David McLean  
1966-67: Mr. Stephen Bigsby  
1965-66: Mr. Paul Williamson  
1964-65: Mrs. Olivia Barr  
1963-64: Mr. Laurence E. Devlin

#### 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 the Faculty of Graduate Studies. Through the Executive Council of the Society, it represents the graduate students to the University and the community. Its purpose is to encourage graduate student participation in the intellectual, cultural and social affairs of the University.

The Executive Council of the Society, comprising eight members, is elected by the members of the Society. These eight council members are:

The President is the official representative of the Society to the University and community; he chairs all meetings of the Society; he is an ex-officio member of all committees within the Society.

The Vice-President assists the President in the execution of his duties; he is the official spokesman of the Society in the absence of the President; he is often appointed by the President to chair committees within the Society; he arranges the time and place of all meetings of the Society.

The Secretary takes minutes of all executive and general meetings of the Society; he is responsible for all correspondence of the Society.

The Treasurer is responsible for the funds of the Society; he keeps an accurate record of the funds received and disbursed by the Society; he prepares the budget of the Society, subject to approval by the Executive Council.

The Liaison Officer acts as a liaison between the Executive Council of the Society and the Alma Mater Society, he is often appointed by the President to sit on University committees.

The Special Relations Officer is a representative of the Society at meetings of the British Columbia Graduate Student Society, and co-ordinates the activities of members serving on University Committees.

The Publicity Officer is responsible for all newsletters publicizing the activities of the Society and assists the electoral officer during elections.

The Social Director is responsible for organizing all social functions of the Society and the correspondence pertaining to these functions.

*President* 1969-70 — Mr. William F. Hyslop  
1968-69 — Mr. Fred P. Dieken  
1967-68 — Mr. Michael G. Roberts  
1966-67 — Mr. Padraig Coughlan

### 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.

### AVENUES OF REDRESS

In cases where students have problems involving individual faculty members and wish to seek redress, they may do so, without fear of consequence, through the officer responsible for Student Affairs (appointment pending), the Counselling Centre, Department Heads or Chairmen, A.M.S. representatives, other individual faculty members, the Student Faculty Liaison Committee of the Faculty of Education, Deans, the President and Senate.

### HAZING

The Board of Governors prohibits hazing.

The attention of students is called to this resolution of the Alma Mater Society: *The Students' 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 is becoming 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 Students' Council.*

### UNAUTHORIZED STUDENT ACTIVITIES

The Board of Governors prohibits any act by a student attending the University, or by anyone, which might cause injury to any person or damage to University property.

Any violation of the British Columbia liquor regulations within the precincts of the University is considered to be a serious offence and any such violation may be reported to the Faculty Council for disciplinary action. Any events organized on the campus at which liquor will be served must receive prior approval from the President's office.

The Board of Governors considers unlawful entry of buildings on campus a very serious offence, and any such occurrence will be reported to and dealt with by the Board of Governors.

Any student violating the above regulations is liable to expulsion.

## **SERVICE TRAINING WHILE AT THE UNIVERSITY**

### **CANADIAN ARMED FORCES SUBSIDIZATION PLANS**

#### **Regular Officer Training Plan:**

A number of young men, who are interested in the Regular Force as a career, are accepted each year as ROTP officer cadets. They may be high school graduates or university students in any undergraduate year. Undergraduates enrolled in the service of their choice continue in university until graduation. They take their winter training with the Reserve Cadets and their summer training in their respective services. Application for admission is normally made before July 1 in the year of entrance but there is a further opportunity to join through the academic year.

ROTP is a completely subsidized university plan covering tuition, books, medical service and a comfortable living allowance for up to five years of undergraduate study.

#### **Medical Officers Training Plan and Dental Officers Training Plan**

The medical officers training plan and the dental officers training plan are designed for candidates who have already completed one year of medical or dental school. It covers full subsidization of tuition, books with the addition of a graduated pay and rank throughout four years of undergraduate study.

Students interested in any of the above Regular Force Plans should enquire at any Canadian Forces Recruiting Centre. The Vancouver Island centre is located at 1002 Wharf Street, Victoria, B.C., and the telephone number is 386-8021.

#### **Primary Reserve**

Reserve Officer University Training Plan (ROUTP) provides an opportunity for a limited number of suitable young men, enrolled in Canadian universities to perform officer training during the summer months while they are undergraduates and thereby prepare themselves for promotion to commissioned rank in the primary reserve of the Canadian Armed Forces. For further details contact the University Liaison Officer located at the Canadian Forces Base Esquimalt, Esquimalt, B.C.

# COLLEGE AFFAIRS

## THE COLLEGE SYSTEM

The University decided to establish a College system in 1966, after conducting studies of systems used elsewhere in North America and Europe. It represents an attempt on the part of the University to deal with the problems that frequently arise through rapid growth and expansion. It is hoped that the College system will give the students a greater sense of identity through close association with a fairly small group of students and professors and that this association will allow them to derive maximum benefit from their studies.

The strength of the college lies in its diversity. Because its members come from various years and disciplines within the University, it is hoped that both resident and non-resident members will have the opportunity of continuing their education outside the formal classroom through the informal exchange of ideas with professors and students.

The colleges are not separate teaching institutions: all teaching is carried on through the Departments, Schools and Faculties. However, it is in the area of general culture and social affairs that the colleges can make their most significant contribution by sponsoring films, seminars, informal discussions with professors, sports, events, social activities and special lectures.

In general, each college will consist of approximately 1,000 students, with 300 residents and 700 non-residents. The internal affairs of each college are managed and directed by a College Council consisting of the Master, the Fellows, and student representatives elected from and by members of the college.

During 1969 the first two Colleges of the University's College system came into operation. The first to be completed, in February 1969, was Craigdarroch College. The facilities of Lansdowne were completed in November 1969. The Colleges each possess study-office wings with some library and classroom facilities, and residences. The Colleges share the facilities of the Commons Block, with its dining room, seminar lounges, games rooms and cafeterias. Both resident and non-resident members of the Colleges have full access to these facilities and they are encouraged to use them.

## CRAIGDARROCH COLLEGE COUNCIL

The composition of Craigdarroch College Council for 1969-70 is as follows:

*Fellows* Dr. L. Adey (Department of English)  
Dr. D. C. Y. Lai (Department of Geography)  
Dr. Elaine Limbrick (Department of French)  
Mr. H. H. Huxley (Department of Linguistics)  
Dr. C. D. Scarfe (Department of Physics)

*Students* Erica Gripenberg (elected from Women's Residences)  
Bev Coe (elected from Women's Residences)  
David McLaren (elected from Men's Residences)  
James Brock (elected from Men's Residences)  
Ann Colebrook (elected from non-residents)  
Richard Quan (elected from non-residents)  
Brad Mundy (elected from non-residents)  
Ric Careless (elected from non-residents)  
Brock Ketcham (elected from non-residents)

*Master* Mr. G. Grant McOrmond (Department of English)

Members of the Men's and Women's Residence Councils are also invited to attend all meetings of the College Council.

## LANSDOWNE COLLEGE COUNCIL

The composition of Lansdowne College Council for 1969-70 is as follows:

- Fellows* Dr. C. D. Doyle (Department of English)  
Dr. P. H. Juncker (Department of Geography)  
Dr. R. V. Peavy (Department of Education)  
Dr. N. C. Smith (Department of English)  
Dr. J. B. Tatum (Department of Physics)
- Students* Chris Cameron (elected from Women's Residences)  
Ken Stubbs (elected from non-residents)  
Robert Gill (elected from non-residents)  
Kelly Cook (elected from non-residents)  
Ken McRae (elected from Men's Residences)
- Master* Dr. Bryan N. S. Gooch (Department of English)

### MEMBERSHIP IN CRAIGDARROCH AND LANSDOWNE COLLEGES

#### 1. Resident Students

Students wishing accommodation in the residences of the colleges should request application forms from the Housing Office (Office of the Co-ordinator of Women's Activities). The number of places available is limited. For that reason, students are advised to apply early. Assignment of rooms will be completed by July 31 for those students who can be accommodated. Assignment of rooms is conditional upon the student being granted academic admission to the University.

All resident students will automatically be members of a college. For information concerning rates, please see page 67.

#### 2. Non-Resident Students

Because the University is not able at this time to provide college facilities for all students in the University, students who wish to become members of either Craigdarroch or Lansdowne College should make application to the Master of Craigdarroch College or the Master of Lansdowne College. Application forms will be mailed on request.

The completed application form must be returned by September 25, 1970. Successful candidates will be notified by letter and a membership card will be mailed to them. In selecting students for membership in a college, an attempt will be made to provide for a cross-section of the student body by Faculty and year.

Membership in a college is, of course, conditional upon the student being academically admissible to the University. Students returning to the University of Victoria who are members of either of the Colleges, should renew their membership by notifying the College Office of their return.

*Faculty of Arts and Science*

# FACULTY OF ARTS AND SCIENCE

The degrees offered in this Faculty are Bachelor of Arts (B.A.) and Bachelor of Science (B.Sc.). Most departments offer programmes leading to an Honours degree.

## Admission and Registration

1. Please refer to regulations given on pages 37 to 50.
2. After September 25, except in very special circumstances and with the permission of Faculty, no student may change the programme for which he has registered. See page 52.
3. All changes in registration must be made by the student at the Registrar's Office. A student may not take courses for which he has not registered, and will be considered as having failed in all courses dropped without permission of the Registrar.

## Summer Session and Other Credits

1. Although the degrees in this Faculty are normally granted on completion of the required units in the winter session, credits obtained in summer session may be combined with those obtained in winter session to complete the required number of units.
2. The maximum credit for summer session work in any one calendar year is 6 units.
3. Students who plan to undertake work at other universities must receive prior approval from the Dean or the Registrar if they wish such courses to be credited towards a degree at the University of Victoria. 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 Registrar of the University of Victoria. Extramural work done at other universities prior to registration at the University of Victoria may be accepted, if approved by the Faculty, but may not exceed 3 units in respect of any one academic year, or normally, a maximum of 15 units subsequent to Grade 13.
4. Students in attendance at the University may not register concurrently for extramural or correspondence work for credit at the university level.
5. Although candidates may complete degree requirements by registration in Summer Session and Evening courses, all candidates are urged to register as full-time students for at least one Winter Session, preferably that of the Final Year.
6. A student who has taken his first three years at the University of Victoria may be granted a B.A. or a B.Sc. after at least one year of a medical programme provided that the courses he takes at the medical school, when combined with those taken at the University of Victoria, are deemed equivalent to those which would be required at the University of Victoria either for a general or a major B.A. or B.Sc. Only courses which do not overlap courses taken at the University of Victoria and which are acceptable to the appropriate department(s) will be accepted for credit. The University shall receive assurance from the other university that a Bachelor of Arts or a Bachelor of Science degree will not be granted for the same work.

A student must apply through the Registrar for assessment by the department or departments concerned.

If a student contemplates a transfer to a medical school after his third year and may wish to receive credit toward a Bachelor's degree, he should consult with the department concerned about choice of undergraduate courses as early as possible.

A departmental recommendation for such a Bachelor's degree will be made through the Faculty to the Senate.

## DEGREE PROGRAMMES

A student may proceed to the B.A. degree in one of three programmes: Honours, Major, and General. The Honours programme 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 programme. The Major programme requires a degree of 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. The General programme may also lead to professional careers or graduate studies, depending upon the level of competence demonstrated therein; its distinctive characteristic, however, is the breadth of the education for which it provides. In most cases, by choosing courses carefully, students may postpone until the end of the Second Year the decision as to which programme to undertake. Students must consult departmental requirements and prerequisites.

Students who may wish to take a professional year in the Faculty of Education after obtaining the B.A. or B.Sc. degree are advised to choose their electives so as to complete a second teaching subject area.

Students who may wish to transfer to another university or to undertake further study, are advised to select either an introductory course in English or courses in another language to the 200 level or both amongst their electives.

#### **Degree Requirements Common to the B.A. and B.Sc. Programmes**

Each of the Honours, Major and General programmes requires the completion of a minimum of 60 units of course work, including at least 21 units of courses numbered 300 or higher.

Effective September 1, 1970, each undergraduate student seeking to qualify for a degree in the Faculty of Arts and Science is required: (a) either to pass a qualifying examination in the use of English, or to complete satisfactorily a prescribed course in First Year English; and (b) 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; and (c) 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 another department. No other requirements as to courses completed are prescribed except those established as prerequisites and corequisites by each department.

#### **Honours Programme**

The number of units required for an Honours programme varies between 60 and 69 depending upon the requirements of the department concerned. Departmental requirements are set out on pages 81 - 209 and must be satisfied along with general University regulations on page 50 and the general requirements for completion of the first 30 units as specified above.

Unless special permission is given by the Dean to the contrary, a student must complete the requirements for an Honours programme in four academic years. With the joint approval of the departments concerned, a student may be permitted to fulfill requirements for an Honours programme in two fields; however, such a programme may require an extra year of study.

A student planning to proceed in an Honours programme must consult the Chairman or Head of the Department concerned, or his nominee, as early as possible in his academic career; and in any case must obtain the consent of the Department concerned. This consent will normally be given only if (a) the Department offers an Honours programme; (b) the student has fulfilled the requirements of the first two years, and has at least Second Class standing (a G.P.A. of 3.50) in the work of the Second Year and in the field of specialization; and (c) the student has completed all prerequisite courses. He may not continue in an Honours programme after the Third Year without the consent of the Department concerned. If, in the opinion of the Department, his work at any time is not of Honours standard, a student may be permitted to transfer to the Major or General programme.

A candidate for Honours may be required to present a graduating essay, to pursue a programme 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 his final year to take a comprehensive examination — oral, written, or both.

Honours are of two classes: First and Second. A student who passes all his courses but fails to obtain a Second Class standing (a G.P.A. of 3.50) in the work of his Third and Fourth Years may, upon recommendation of the Department, be granted appropriate standing in the Major or General programme.

#### Major Programme

The Major programme requires the completion of the first 30 units in conformity with the regulations on page 77 and the remaining units in conformity with general University regulations on page 50 and as follows: courses selected to include the major, consisting of 15 units of courses numbered 300 and above, as specified by the department; and at least 15 units of electives which may, when desirable, include not more than 9 units prescribed by the department as corequisites.

#### General Programme

The General programme requires completion of the first and second years in conformity with the regulations on page 77 and in conformity with general University regulations given on page 50 and as follows: 9 units taken in courses numbered 300 and above, as may be specified by the department in each of two fields; and 12 units of electives which may, when desirable, include not more than 6 units prescribed by the departments as corequisites.

### PROGRAMMES LEADING TO THE DEGREE OF BACHELOR OF ARTS\*

In order to qualify for a B.A. degree a student must present at least 33 units (of the minimum 60 units required for a degree) of courses from the following departments while meeting the general requirements specified on page 50 and for the degree programme selected: Anthropology and Sociology, Classics, Economics, English, French Language and Literature, Geography, Germanic Languages and Literature, Hispanic and Italian Studies, History, Linguistics, Mathematics, Philosophy, Political Science, Psychology, Slavonic and Oriental Studies.

Students may proceed to a B.A. degree in an Honours or a Major programme in the following fields:

Anthropology	Mathematics
Classics	Philosophy
Economics	Political Science
English	Psychology
French	Russian (Major only)
Geography	Social Welfare (Major only — see page 79)
German	Sociology
History	Spanish
Linguistics	

A student may proceed to a B.A. degree in a General programme in any two of the above fields, or in one of the above and one of the following: Biology, Chemistry, Physics.

### PROGRAMMES LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

In order to qualify for a B.Sc. degree, a student must present at least 33 units (of the minimum 60 units required for a degree) of courses from the following departments while meeting the general requirements specified on page 77 and for the degree programme selected: Bacteriology and Biochemistry, Biology, Chemistry, Geography, Mathematics, Physics, Psychology.

A student may proceed to a B.Sc. degree in the Honours programme in one of the following fields: Astronomy, Bacteriology, Biochemistry, Botany, Chemistry, Geography, Mathematics, Physics, Psychology, Zoology.

\*A Bachelor of Arts programme in History in Art is offered in the Faculty of Fine Arts.

A student may proceed to a B.Sc. degree with a major in one of the following fields: Astronomy, Botany, Chemistry, Geography, Mathematics, Physics, Psychology, Zoology.

A student may proceed to a B.Sc. in a General programme in any two of the following fields: Biology, Chemistry, Geography, Mathematics, Physics, Psychology.

#### INTERDISCIPLINARY PROGRAMMES

##### **Bachelor of Arts with a Major in Social Welfare:**

The Bachelor of Arts with a Major in Social Welfare requires, in the Third and Fourth Years, a minimum of 33 units. Of these 33 units, 9 must be taken in courses numbered 300 or higher as may be specified by the Department in each of two of the following fields: Anthropology, Economics, Political Science, Psychology, Sociology. Either as part of these two areas of concentration or in addition to them, the student must complete Psychology 335 and Sociology 350. In addition, the Major requires Social Work 400, an Introduction to Social Work.

##### **Interdepartmental Offerings:**

Senior courses in the humanities and sciences, given on an interdepartmental basis, are available as free electives (see p. 136 for Liberal Arts 305; p. 109 for Chemistry 300).

##### **Pacific Studies Programme:**

In February 1969, the Senate approved the introduction of a Pacific Studies programme. Details of the programme had not been prepared at the time of publication of this Calendar.

## COURSES IN ARTS AND SCIENCE

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# DEPARTMENT OF ANTHROPOLOGY AND SOCIOLOGY

- Roy E. L. Watson, M.A., Ph.D. (*Tor.*), Associate Professor and Chairman of the Department. (On leave 1970-71).
- Donald H. Mitchell, B.A., B.Com., M.A. (*Brit. Col.*), Ph.D. (*Oregon*), Assistant Professor and Acting Chairman of the Department.
- William H. Alkire, B.A. (*Wash.*), M.A. (*Hawaii*), Ph.D. (*Illinois*), Associate Professor.
- Robert B. Hagedorn, B.A. (*San Francisco State*), M.A. (*Wash.*), Ph.D. (*Texas*), Associate Professor.
- Robert B. Lane, A.B., Ph.D. (*Wash.*), Associate Professor.
- Richard Shutler Jr., A.B., M.A. (*Calif., Berkeley*), Ph.D. (*Arizona*), Associate Professor.
- Donald W. Ball, B.A. (*Calif., Santa Barbara*), M.S. (*Oregon*), M.A., Ph.D. (*Calif., Los Angeles*), Assistant Professor.
- N. Ross Crumrine, B.A. (*Northwestern*), M.A., Ph.D. (*Arizona*), Assistant Professor.
- Leland H. Donald, B.A. (*Emory*), Ph.D. (*Oregon*), Assistant Professor.
- Clyde R. Pope, B.A. (*Anderson College*), M.A. (*Chicago*), Ph.D. (*Oregon*), Assistant Professor.
- T. Rennie Warburton, B.A. (*Leeds*), Ph.D. (*London*), Assistant Professor.
- R. Alan Hedley, B.A., M.A. (*Brit. Col.*), Lecturer.
- David Stevenson, B.Sc., M.A. (*Brit. Col.*), Lecturer.
- Mary L. Stearns, B.A., M.A. (*Calif., Los Angeles*), Lecturer.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

### ANTHROPOLOGY

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

Major—Second Year: Anthropology 200, 240 and 250; Third and Fourth Years: a total of 15 units in Anthropology consisting of: 300; 340; three units from 320, 322, 324, 325, 326, 328, 329, 334, 339, and 422 chosen to include two ethnographic areas; three units from 400, 401, 416, 418 and 441; and three units from 305, 306, 310, 335, 404, 405, 406, 407, 414, 419, 345, 346, and 449.

Honours—Students who have achieved at least high Second Class standing in Anthropology 200, 240 and 250 may be admitted to the Third Year in the Honours Programme with the permission of the Department; Third and Fourth Years: students will offer at least 34 units of which 22 must be in Anthropology and include 300, 340, 399, and 499; three units chosen from 400 and 416; three units from 320, 322, 324, 325, 326, 328, 329, 334, 339, and 422, chosen to include two ethnographic areas; six units chosen to include at least one course from each of the following groups: 305, 306, 310, 335, 401, 404, 405, 406, 407, 414, 418, 419; and 345, 346, 441, 449. 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.

### SOCIOLOGY

General—First and Second Years: either Sociology 100 and/or 200; Third and Fourth Years: nine additional units of Sociology chosen from courses numbered 300 and above.

Major—First and Second Years: either Sociology 100 and/or 200; Third and Fourth Years: a total of 15 units of Sociology consisting of 400, 430 and nine additional units chosen from courses numbered 300 and above.

Honours — Students who have achieved at least high Second Class standing in either Sociology 100 and/or 200 may be admitted to the Third Year in the Honours Programme with the permission of the Department; Third and Fourth Years: students will offer at least 34 units of which 22 must be in Sociology and include Sociology 370, 399, 400, 430, 499.

## COURSES OFFERED

### ANTHROPOLOGY

Prerequisite for Upper Division Courses:

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

- (a) Completion of Anthropology 100 as a prerequisite or corequisite.
- (b) Completion of Anthropology 200 and/or 240 and 250 as a prerequisite or corequisite.
- (c) The student has at least Third Year standing and the permission of the course Instructor.

ANTH 100 (formerly 200). (3) **Introduction to Anthropology**

Surveys the field and basic concepts of the discipline; origins of man and culture; nature of race; development of culture. The comparative study of cultural institutions such as social structure, language, art, religion. For students who have had no prior course in Anthropology. Anthropology 100 is intended for First Year students and others wishing a general survey of the field. (3-0; 3-0)

ANTH 200 (formerly 201). (3) **Social Anthropology**

An introduction to the analysis of socio-cultural systems. Substantive materials will be taken from societies representing different levels of complexity and various parts of the world.

Prerequisite: At least Second Year standing. (3-0; 3-0)

ANTH 240. (1½) **Archaeology**

An introduction to archaeological research and problems of interpretation; survey and examination of our current understanding of prehistoric cultural development in the world's major regions. First term only.

Prerequisite: At least Second Year standing. (3-0; 0-0)

ANTH 250. (1½) **Physical Anthropology**

An introduction to the investigation of biological characteristics of human populations; evolution of human populations. Second term only.

Prerequisite: At least Second Year standing. (0-0; 3-0)

ANTH 300. (3) **Comparative Social Organization**

The nature, forms and functions of basic social institutions with primary emphasis upon the family, kinship and kinship-based groupings. (3-0; 3-0)

ANTH 305. (1½) **Primitive Arts and Crafts**

The development and functions of arts and crafts in prehistoric and primitive cultures. Major traditions and their distributions. First term only. (3-0; 0-0)

ANTH 306. (1½) **Folklore and Mythology**

Oral traditions of non-literate peoples. The structure and functions of specific types of materials. The relations of the study of folklore and mythology to other interests in Anthropology. Second term only. (0-0; 3-0)

(Not offered 1970-71.)

ANTH 310. (Sociology 310) (3) **Religion**

The analysis of religion as a social institution. Topics studied include: problems of definition and methodological approaches; theories about the origin and evolution of religion; anthropological field studies of religion; the validity and ramifications of Weber's thesis on Protestantism and modern Western civilization, including his studies on the world religions; types of religious organization, e.g. sects, churches and denominations; messianic and nativistic movements; religion in contemporary Western societies.

There will be a final examination but grades for the course are awarded primarily on the basis of three term papers for which students are required to do considerable reading. Students are also expected to lead class discussions. (3-0; 3-0)

ANTH 320. (1-3) **Ethnology of a Selected Area**

Students should consult the Department. (3-0; 3-0)

ANTH 322. (3) **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; 3-0)

(Not offered 1970-71.)

ANTH 324. (1 1/2) **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 trend in cultural development. First term only. (3-0; 0-0)

ANTH 325. (1 1/2) **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. Second term only. (0-0; 3-0)

ANTH 326. (1 1/2) **Ethnology of Oceania**

Peoples and cultures of the Pacific Islands. Their origins and development. Second term only. (0-0; 3-0)

ANTH 328. (1 1/2) **Ethnology of Northeast Asia**

An integrated description and analysis of the peoples and cultures of Japan, China, and other areas of Northeast Asia. First term only. (3-0; 0-0)

ANTH 329 (formerly Anthropology 328). (1 1/2) **Ethnology of Southeast Asia**

An integrated description and analysis of the peoples and cultures of the major culture areas of Mainland and Island Southeast Asia, and India. Second term only. (0-0; 3-0)

ANTH 334. (1 1/2) **Ethnology of Sub-Saharan Africa**

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

ANTH 335. (Sociology 335) (3) **Minority and Ethnic Group Relations**

Minority and ethnic groups within complex societies with special reference to Canada. (3-0; 3-0)

ANTH 339. (3) **Indians of the Pacific Northwest**

Native cultures of the Pacific Northwest and anthropological problems presented by this area; a survey of the native peoples of the New World; racial, linguistic and cultural relationships; intensive study of a few representative tribes. (3-0; 3-0)

ANTH 340. (3) **Evolution of Man and Culture**

First term: fossil man and his primitive ancestors; the development of modern human populations; principles of evolutionary theory. Second term: survey of the main developments in world prehistory; introduction to problems of archaeological interpretation.

Text: Bernard G. Campbell, *Human Evolution. An Introduction to Man's Adaptations*, Aldine Publishing Company, Chicago. (3-0; 3-0)

ANTH 345. (1½) **Prehistory of South and East Asia**

A survey of the prehistorical development and cultural origins of China, Japan, Mainland and Island Southeast Asia and India. First term only.

Text: Various journal articles. There is no general text. (3-0; 0-0)

ANTH 346. (1½) **Prehistory of Oceania**

A survey of the prehistorical development and cultural origins of Australia and the Pacific Islands. Second term only.

Text: Various journal articles. There is no general text. (0-0; 3-0)

ANTH 399. (1) **Honours Seminar**

For students in the Third Year of the Honours programme. (1-0; 1-0)

ANTH 400. (3) **Anthropological Theory**

A survey of theory in Anthropology, of principal concepts utilized in the field, and of major contributors to the development of the field. Open only to students registered in the Fourth Year. (3-0; 3-0)

ANTH 401. (1½) **Cultural Ecology**

Theories concerning the relationship of man, culture and environment; cultural systems as the means by which human population adapt to their environments. Second term only. (0-0; 3-0)

ANTH 404. (1½) **Economic Anthropology: Traditional Societies**

A comparative and analytical survey of the social context of production, distribution and exchange in traditional societies. First term only. (3-0; 0-0)

ANTH 405. (1½) **Economic Anthropology: Peasant Societies**

A comparative and analytical survey of the social context of production, distribution and exchange in peasant societies. An examination of the social aspects of economic development. Second term only. (0-0; 3-0)

ANTH 406. (1½) **Anthropology of Political and Legal Institutions**

A comparative and analytical survey of political and legal institutions. Second term only. (0-0; 3-0)

ANTH 407. (1½) **Symbolic Anthropology**

A comparative study of the function of symbolism in social, ritual, and cognitive systems. An examination of the structural and functional relations of cultural, social, and personality systems from the viewpoint of man as a symbolizing animal. Selected human groups will be analyzed from this point of view and the relations between symbolic systems and culture change will be discussed. Second term only.

Prerequisite: In addition to Anthropology 100 or 200, 306 is recommended.

(0-0; 3-0)

ANTH 414. (1½) **Cultural and Personality**

An examination of the types and range of relationships between culturally patterned behaviour and personal character. Consideration of national character, modal personality, the socialization process, and idiosyncratic behaviour. First term only.

(3-0; 0-0)

\* ANTH 422. (1½) *Ethnology of Circumpolar Region*  
The cultures of Arctic and sub-Arctic Eurasia and North America  
Second term only. (0-0; 3-0)

ANTH 416. (3) **Introduction to Anthropological Research**

Designed to give students competence in research methods suitable for anthropological problems. Emphasis is placed on research design, problems of validation, the nature of explanations, and formal methods of analysis, especially statistics. Course work includes solution of problems in laboratory sessions, examinations, and completion of a research project. (2-2; 2-2)

ANTH 418. (Sociology 418). (1½) **Social Change**

General theory of cultural evolution and social change. The impact of complex cultures upon the native peoples of Africa, Asia, the Pacific and the Americas. First term only. (3-0; 0-0)

ANTH 419. (Sociology 419) (1½) **Modernization and Development**

Process of modernization. Industrialization and urbanization in the contemporary world. Second term only. (0-0; 3-0)

\* ANTH 441. (1½) **Archaeological Method and Theory**

Techniques of excavation, description and analysis of archaeological materials, research design and preparation of reports; the historical and anthropological contexts of archaeological research. Area emphasis Pacific Basin and Perimeter. First term only.

Texts: Sally R. Binford and Lewis P. Binford, *New Perspectives in Archaeology*, 1968; Walter W. Taylor, *A Study of Archaeology*, Southern Illinois University Press, 1967; and one to be chosen later. (2-2; 0-0)

ANTH 449. (1½) **Archaeology of The Pacific Northwest**

Intensive study of problems of interpreting Pacific Northwest archaeological data. Field trips will be scheduled. Second term only. (0-0; 3-0)

ANTH 460. (1½) **Museology**

A survey of the historical development of museums, the educational and social importance of museums, and the main aspects of modern museum operations. Open only to students taking Anthropology as an area of concentration, major or honours, or by permission of the Department.

NOTE: Anthropology 460 is an elective and may not be included among the courses completed to satisfy the anthropology requirements for honours, majors or general programme.

First or Second term only. (3-0)

ANTH 490. (1-3) **Directed Studies**

This course may be substituted for an elective course in Anthropology in the Fourth Year of the Honours Programme with the permission of the Department.

ANTH 499. (3) **Honours Seminar and Graduating Essay**

## SOCIOLOGY

NOTE: Sociology electives and prerequisites: Either Sociology 100 or 200 is recommended for the general student as well as for those intending to major in Sociology. Sociology 100 is open only to students registered in First Year; students in other years should choose Sociology 200. Either Sociology 100 or 200 is prerequisite for all courses numbered 300 or above. However, Sociology 200 may be taken concurrently with advanced courses.

SOCI 100 (formerly 200). (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. For First Year students only. (3-0; 3-0)

**SOCI 200. (3) Canadian Society**

An examination of Canadian Society and its changing structure through the use of basic concepts, principles and methods of Sociology.

Prerequisite: At least Second Year standing. (3-0; 3-0)

**SOCI 301. (3) Sociology of Deviance and Social Control**

Theories of deviant conduct; the social roles of deviants; the relationship between deviance and social control; agencies and mechanisms of control.

Papers and examinations.

Outside reading at student's discretion.

Texts: To be announced. (3-0; 3-0)

**SOCI 304 (formerly 305). (3) Socialization and Interaction**

Socialization processes, structural aspects of socialization; transmission and learning of sociocultural categories; norms, values and roles; self identity and society; psychological sociology and social psychology; models of interaction; naturalistic and experimental approaches to the study of interaction; ethnomethodology and studies in everyday life.

Papers and examinations. Outside reading at student's discretion.

Texts: To be announced. (3-0; 3-0)

**SOCI 305. (3) Sociology of The Family**

The family as structure and process; family functions in social order; continuity and change. (3-0; 3-0)

**SOCI 310. (Anthropology 310) (3) Sociology of Religion**

The analysis of religion as a social institution. Topics studied include: problems of definition and methodological approaches; theories about the origin and evolution of religion; anthropological field studies of religion; the validity and ramification of Weber's thesis on Protestantism and modern Western civilization, including his studies on the world religions; types of religious organization, e.g. sects, churches and denominations; messianic and nativistic movements; religion in contemporary Western societies.

There will be a final examination but grades for the course are awarded primarily on the basis of three term papers for which students are required to do considerable reading. Students are also expected to lead class discussions. (3-0; 3-0)

**SOCI 315. (3) Social Stratification**

Systematic analysis of social class theory and research; consideration of the determinants and consequences of social class and social mobility. (3-0; 3-0)

**SOCI 320. (3) Sociology of Occupations**

Attitudes to work, similarities and differences between occupations; the nature of professions; the contrast between jobs and careers.

Prerequisite may be waived in exceptional cases.

Term papers to be presented in Seminar.

Examinations.

Detailed reading list available at time of registration. (3-0; 3-0)

**SOCI 325. (1 1/2) Small Groups**

Analysis and discussion of field studies and laboratory experiments on small groups in various settings; the contribution of this research to the development of theory. First or Second Term only. (3-0)

**SOCI 330. (3) Political Sociology**

The application of sociological concepts, theory, and methods to the study of political theory and political behaviour including the relationships between political and other social institutions.

Prerequisite may be waived in exceptional cases. (3-0; 3-0)

- SOCI 335. (Anthropology 335) (3) **Minority and Ethnic Group Relations**  
 Minority and ethnic groups within complex societies with special reference to Canada. (3-0; 3-0)
- SOCI 340. (1½) **Demography**  
 Study of the growth, distribution, and movement of human populations with special emphasis on the social causes and consequences. First term only. (3-0; 0-0)
- SOCI 341. (1½) **Human Ecology**  
 Study of the form and development of human communities as adaptations to continuously changing conditions of life. Second term only. (0-0; 3-0)
- SOCI 345. (3) **Sociology of Health and Medicine**  
 The study of those aspects of social life that bear on human health and the institutions and occupations devoted to diagnosing and managing problems of illness. (3-0; 3-0)
- SOCI 350. (3) **Social Welfare as a Social Institution**  
 The historical developments of social welfare as a social institution; the organization of welfare services and the functions they perform in modern society; the relation of social welfare to other institutions. (3-0; 3-0)
- SOCI 355. (3) **Sociology of Communication**  
 The structure and function of communication in society, the process of interpersonal and mass communication, opinion formation and change, development of communication systems, impact of mass media on society. (3-0; 3-0)
- SOCI 370. (3) **Quantitative Methods in Sociology**  
 Techniques for analyzing sociological data in quantitative form; probability theory and sampling; hypothesis testing; selected parametric and nonparametric methods; bivariate and multivariate analysis; analysis of variance.  
 Prerequisite: Mathematics 150, 140, 130 or 100 or by permission.  
 Text: Hubert M. Blalock, *Social Statistics*.  
 Homework assignments, mid-terms, Christmas examination, and final examination. (3-0; 3-0)
- SOCI 399. (1) **Honours Seminar**  
 For students in the Third Year of the Honours Programme. (1-0; 1-0)
- SOCI 400. (3) **Sociological Theory**  
 A consideration of major sociological theories and theorists, the relation of earlier sociological thought to contemporary theory with special emphasis on recurrent problems and basic concepts. Open only to students registered in the Fourth Year.  
 There will be a final examination but grades for the course are awarded primarily on the basis of three term papers for which students are required to do considerable reading. Students are also expected to lead class discussions.  
 Text: P. S. Cohen, *Modern Social Theory*, Heinemann, London, 1968. (3-0; 3-0)
- SOCI 418. (Anthropology 418) (1½) **Social Change**  
 General theory of cultural evolution and social change. The impact of complex cultures upon the native peoples of Africa, Asia, the Pacific and the Americas. First term only. (3-0; 0-0)
- SOCI 419. (Anthropology 419) (1½) **Modernization and Development**  
 Process of modernization. Industrialization and urbanization in the contemporary world. Second term only. (0-0; 3-0)

**SOCI 430. (3) Introduction to Social Research**

The nature of scientific enquiry; problems of research design, concept formulation, hypothesis construction, problems of data collection and measurement, analysis and interpretation of data.

Prerequisite: Fourth Year standing or permission of the Department.

Text: To be announced.

Students will design and carry out a survey in Victoria. Final examination.

(3-0; 3-0)

**SOCI 490. (1-3) Directed Studies**

This course may be substituted for an elective course in Sociology in the Fourth Year of the Honours Programme with the permission of the Department.

**SOCI 499. (3) Honours Seminar and Graduating Essay**

## **GRADUATE COURSES**

**ANTH 500. (3) Seminar in Anthropological Theory**

**ANTH 501. (3) Seminar in Social and Cultural Anthropology**

**ANTH 519. (1 ½) Field Problems and Methods in Social and Cultural Anthropology**  
First or second term.

**ANTH 520. (1 ½) Ethnology of Meso-America**  
First or second term.

**ANTH 521. (1 ½) Ethnology of South America**

**ANTH 522. (1 ½) Ethnology of Northwest North America**  
First or second term.

**ANTH 523. (1 ½) Ethnology of the Circum-Polar Region**  
First or second term.

**ANTH 541. (1 ½) Seminar in Archaeology and Culture History**  
First or second term.

**ANTH 542. (1 ½) Archaeology of a Selected Area**  
First or second term.

**ANTH 550. (1 ½) Selected Problems in Physical Anthropology**  
First or second term.

**ANTH 590. (1 ½-3) Directed Studies**

**ANTH 599. (3) Thesis**

**SOCI 500. (3) Seminar in Sociological Theory**

**SOCI 510. (3) Advanced Research Methods**

**SOCI 520. (3) Selected Problems in the Sociology of Religion**

**SOCI 521. (3) Selected Problems in Social Stratification**

**SOCI 522. (3) Selected Problems in Medical Sociology**

**SOCI 523. (3) Selected Problems in the Sociology of Occupations**

**SOCI 524. (3) Selected Problems in Interaction and Socializations**

**SOCI 525. (3) Selected Problems in the Sociology of Deviance**

**SOCI 590. (3) Directed Studies**

**SOCI 599. (3) Thesis**

# DEPARTMENT OF BACTERIOLOGY AND BIOCHEMISTRY

Alex J. Wood, B.S.A., M.S.A. (*Brit. Col.*), Ph.D. (*Cornell*), Professor and Head of the Department.

T. D. D. Groves, B.S.A., M.S.A. (*Brit. Col.*), Ph.D. (*Purdue*), Associate Professor.

Trevor J. Trust, B.Sc., M.Sc., Ph.D. (*Melbourne*), Assistant Professor.

## HONOURS PROGRAMME — BACTERIOLOGY

		First Year	Second Year	Third Year	Fourth Year
Humanities	English	100	—	—	—
	Language 1	100	200	—	—
	Language 2	—	100	—	—
	Mathematics	130	230	—	343
Physical Science	Chemistry	124	224	233	344
	Chemistry	121	—	231	—
	Chemistry	—	—	344	—
	Physics	101	—	212	—
Biosciences	Zoology	—	202	303	302
	Botany	—	205	415	—
Bacteriology	Bacteriology	—	200	300	400
	Bacteriology	480	480	480	480
	Bacteriology	—	—	—	499
	Biochemistry	—	—	—	400
	Biochemistry	—	—	—	405

## COURSES OFFERED

### BACT 200. (3) **Introductory Bacteriology**

The introductory principles and the language of bacteriology. Techniques for the isolation and cultivation of the bacteria. The relation of bacteria to agriculture, public health and sanitation, fermentation industries and veterinary science. Co-requisites: Mathematics 130, Chemistry 121 and 124.

Texts: B. D. Davis et al, *Principles of Microbiology and Immunology*. Honours candidates use text for Bacteriology 300.

A. J. Wood and T. J. Trust.

(2-2; 2-2)

### BACT 300. (3) **General Bacteriology**

The principles and practices of bacteriology. The basic concepts of immunology, serology, physiology, nutrition, genetics and cytology.

Text: B. D. Davis et al, *Microbiology*.

T. J. Trust and A. J. Wood.

(2-2; 2-2)

### BACT 400. (3) **Advanced Bacteriology**

An in-depth study of bacteriology. Specific concepts in the principle areas.

Text: B. D. Davis et al, *Microbiology*.

A. J. Wood and T. J. Trust.

(2-2; 2-2)

BACT 470. (1-3) **Directed Studies in Bacteriology**

T. J. Trust, T. D. D. Groves, A. J. Wood.

BACT 480. (0) **Seminar**

Attendance and participation is desirable for all students in all years of the Bacteriology Honours programme.

Members of the Department.

(2-0; 2-0)

BACT 499. (2) **Undergraduate Thesis**

Research under the direction of a staff member.

Open to Bacteriology Honours only.

## HONOURS PROGRAMME — BIOCHEMISTRY

		First Year	Second Year	Third Year	Fourth Year
Humanities	English	100	200	—	—
	Language 1	100	200	—	—
	Language 2	—	—	—	100
	Mathematics	130	230	330	343
Physical Science	Chemistry	124	224	233	—
	Chemistry	121	—	344	334
	Chemistry	—	—	231	331
	Physics	101	—	212	—
Biosciences	Biology	—	—	—	—
	Botany	—	—	—	331
	Zoology	—	202	303	—
Biochemistry	Bacteriology	—	200	300	—
	Biochemistry	—	—	—	400
	Biochemistry	—	—	—	405
	Biochemistry	—	—	—	499
	Biochemistry	480	480	480	480

## COURSES OFFERED

BIOC 400. (3) **Biochemistry**

A comprehensive study of the chemistry of biological systems. Topics will include the chemistry of constituents of living organisms and of the anabolic and catabolic pathways of metabolism. Corequisite: Chemistry 344.

Text: H. R. Mahler and E. H. Cordes, *Basic Biological Chemistry*.

T. D. D. Groves.

(3-0; 3-0)

BIOC 405. (1) **Laboratory Methods in Biochemistry**

Corequisite: Chemistry 344.

Text: J. M. Clark, *Experimental Biochemistry*.

T. D. D. Groves and A. J. Wood.

(0-2; 0-2)

BIOC 470. (1-3) **Directed Studies in Biochemistry**

T. D. D. Groves, A. J. Wood and T. J. Trust.

**BIOC 4B0. (0) Seminar**

Attendance and participation is desirable for all students in all years of the Biochemistry Honours programme.

Members of the Department.

(2-0; 2-0)

**BIOC 499. (2) Undergraduate Thesis**

Research under the direction of a staff member. Open to Biochemistry Honours students only.

## **GRADUATE COURSES**

**BIOC 500. (3) Advanced Biochemistry**

**BIOC 510. (3) Advanced Nutritional Biochemistry**

**BIOC 570. (3) Directed Studies**

**BIOC 5B0. (0) Seminar**

**BIOC 599. (3-6) M.Sc. Thesis**

**BIOC 600. (3) Topics in Biochemistry**

**BIOC 699. (3-9) Ph.D. Dissertation**

## DEPARTMENT OF BIOLOGY

- W. Gordon Fields, B.A. (*Brit. Col.*), A.M., Ph.D. (*Stanford*), Professor and Head of the Department.
- Jeffree A. Cunningham, B.A. (*Queen's*), LL.D. (*U. of Vic.*), Professor Emeritus of Zoology.
- Arthur R. Fontaine, B.Sc. (*McGill*), D.Phil. (*Oxon.*), Professor.
- George O. Mackie, B.A., D.Phil. (*Oxon.*), Professor.
- Franklin Thomas Algard, A.B. (*San Jose State*), Ph.D. (*Stanford*), Associate Professor.
- Michael J. Ashwood-Smith, B.Sc., M.Sc. (*Durham*), Ph.D. (*London*), Associate Professor.
- David J. Ballantyne, B.Com. (*Brit. Col.*), M.S. (*Wash. State*), Ph.D. (*Maryland*), Associate Professor.
- Derek Victor Ellis, B.Sc. (*Edin.*), M.Sc., Ph.D. (*McGill*), Associate Professor.
- Edwin M. Hagmeier, M.A., Ph.D. (*Brit. Col.*), Associate Professor.
- John N. Owens, B.S. (*Portland State*), M.S., Ph.D. (*Oregon*), Associate Professor.
- Alan Pervical Austin, B.Sc., Ph.D. (*Wales*), Assistant Professor.
- Marcus A. M. Bell, B.S.F. (*Brit. Col.*), M.F. (*Yale*), Ph.D. (*Brit. Col.*), Assistant Professor.
- Arthur T. Bergerud, B.Sc. (*Oregon State*), M.Sc., (*Wis.*), Ph.D. (*Brit. Col.*), Assistant Professor.
- John S. Hayward, B.Sc., Ph.D. (*Brit. Col.*), Assistant Professor.
- Jack L. Littlepage, B.A. (*San Diego*), Ph.D. (*Stanford*), Assistant Professor.
- John Edward McInerney, B.Sc. (*Ottawa*), M.Sc., Ph.D. (*Brit. Col.*), Assistant Professor.
- John W. Paden, B.S. (*Calif.*), M.S., Ph.D. (*Idaho*), Assistant Professor.
- Robert G. B. Reid, B.Sc., Ph.D. (*Glasgow*), Assistant Professor.
- Richard A. Ring, B.Sc., Ph.D. (*Glasgow*), Assistant Professor.
- E. Derek Styles, B.S.A. (*Brit. Col.*), Ph.D. (*Wis.*), Assistant Professor.
- Hans (Jack) Friedrich Dietrich, Senior Scientific Assistant.
- James E. Simpson, B.Sc.F. (*Tor.*), Senior Laboratory Instructor.

### Honorary Research Associates

- Kenneth Radway Allen, B.A., M.A. (*Cambridge*), Honorary Research Associate, Director, Fisheries Research Board of Canada, Biological Station, Nanaimo, B.C.
- Donald F. Alderdice, B.A., M.A. (*Brit. Col.*), Ph.D. (*Tor.*), Honorary Research Associate, Senior Scientist, Fisheries Research Board of Canada, Biological Station, Nanaimo, B.C.
- Raymond J. Ghelardi, B.A. (*Stanford*), M.S., Ph.D. (*Calif.*), Honorary Research Associate, Senior Scientist, Fisheries Research Board of Canada, Biological Station, Nanaimo, B.C.
- Robert S. Parker, B.S. (*Wash.*), M.A., Ph.D. (*Brit. Col.*), Honorary Research Associate, Senior Scientist, Fisheries Research Board of Canada, Biological Station, Nanaimo, B.C.

## GRADUATE PROGRAMMES

For information on programmes leading to the M.Sc. and Ph.D. degrees, see the section of this Calendar dealing with the Faculty of Graduate Studies.

## UNDERGRADUATE PROGRAMMES

*In all cases, students planning a programme in Biology, Botany or Zoology should consult with the Departmental Office for advice.*

All programmes in the Department are built on a *Basic Programme* made up of two components: (1) a *Biology Core* and (2) *Departmental Corequisites* in the physical sciences. To the *Basic Programme* other courses are added as required.

### **Biology Core:**

1. Biology 150 (Principles of Modern Biology) or equivalent.
2. Botany 205 (The Science of Botany).
3. One of Zoology 202 (Chordate Zoology) or Zoology 301 (Invertebrate Zoology).
4. Biology 300 (Genetics — 1½ units) and Biology 306 (Ecology — 1½ units). Pre-professional students, or those not honouring, majoring or concentrating in the Department may elect Biology 436 (Human Genetics — 1½ units) in place of Biology 306 (Ecology).
5. One of Botany 331 (Plant Physiology), Zoology 305 (General and Cellular Physiology), or Zoology 303 (Vertebrate Physiology).

### **Notes:**

(a) Biology 150 is normally prerequisite to all other courses in the Department except Biology 310 (Elements of Oceanography). The Biology 150 requirement may be considered fulfilled by any one of: Biology 105, Botany 105, Zoology 105, Bacteriology 100 or 200, Grade XIII Biology, Botany or Zoology. Students who have credit for Biology 11 may elect to write a placement examination in general biology during registration week. Those passing this examination may enrol directly in Botany 205 or Zoology 202 for which Biology 150 is the prerequisite. Where this is done, Biology 300 and 306 should be taken in the second year and three units of 300 or 400 level biological courses will be added to the student's programme in a later year. Where the Biology 150 requirement has been fulfilled prior to entry into the University, Botany 205, Zoology 202 and Cell Biology should be taken in the first two years.

(b) A course in Cell Biology is being planned. It is expected to be offered in 1970-71 and details will be available at registration. Students entering second year are advised to take this course which may become part of the core programme in subsequent years.

(c) As a general rule, the Core programme should be completed as early as possible, with Botany 205, Zoology 202 and Cell Biology preferably taken before third year.

(d) Transfer students from District or Regional Colleges will be given appropriate credit and should consult the Department before enrolling here.

### **Departmental Corequisites:**

6. Physics 103 or 101.
7. Chemistry 120 and 111, or 124 and 121.
8. Chemistry 230 and 231, or 232 and 233.
9. Mathematics 102 and 151, or Mathematics 130 or equivalent.

### **Notes:**

(a) Physics 11 and 12 will be accepted as fulfilling the Physics requirement, although students planning graduate work in Biology should take at least one university level course in this subject. Students planning to take more than one university level Physics course should take Physics 101.

## EXAMPLES OF PROGRAMMES IN THE BIOLOGY DEPARTMENT

*These are examples only: students should consult the Department for other selections of suitable programmes and courses.*

	<b>B.A. GENERAL in Biology*</b>	<b>B.Sc. GENERAL in Biology*</b>	<b>MAJOR in Botany or Zoology</b>	<b>HONOURS in Botany or Zoology</b>
I	Biology 150 or Botany 205* or Zoology 202 Chemistry 120 & 111 or equivalent 1 in second area (Arts) 2 Electives	Biology 150 or Botany 205* or Zoology 202 Mathematics 102 & 151, or 130 Chemistry 120 & 111, or equivalent 1 in second area (Science) 1 Elective	Biology 150, or Botany 205* or Zoology 202 Mathematics 102 & 151, or 130 Chemistry 120 & 111, or 124 & 121 Physics 101 or 103 1 Elective	Biology 150 or Botany 205* or Zoology 202 Mathematics 102 & 151 or 130 Chemistry 120 & 111, or 124 & 121 Physics 101 or 103 1 Elective
II	Cell Biology (see Note (b) above) Botany 205* or Zoology 202 1 in second area (Arts) Chemistry 230 & 231 1 Elective	Cell Biology (see Note (b) above) Botany 205* or Zoology 202 Physics 101 or 103 1 in second area (Science) Chemistry 230 + 231	Cell Biology (see Note (b) above) Botany 205* Zoology 202 Chemistry 230 + 231 Elective or corequisite	Cell Biology (see Note (b) above) Botany 205* Zoology 202 Chemistry 230 + 231, or 233 + 232 Elective or corequisite
III	Botany 205* (if not yet taken) or Zoology 202 or 301 1 in second area (Arts) Biology 300 and 306 Zoology 305, 303 or Botany 331 Elective	Botany 205* (if not yet taken) or Zoology 202 or 301 1 in second area (Science) Biology 300 and 306 Zoology 305, 303 or Botany 331 Elective	Botany 342 or Zoology 301 Zoology 305, 303 or Botany 331 Biology 300 and 306 Biology 304 Biology, Botany or Zoology Elective	Botany 342 or Zoology 301 Zoology 305, 303 or Botany 331 Biology 300 and 306 Biology 304 Biology, Botany or Zoology Elective
IV	Biology, Botany or Zoology elective 2 in second area (Arts) 2 Electives	Biology, Botany or Zoology elective 2 in second area (Science) 2 Electives	2 Botany or Zoology electives 3 electives or corequisites	4 as specified by the Department Thesis or Tutorial

\*Botany 205 is required in this programme.

(b) Students considering going on to professional schools, e.g. Medicine, Dentistry, etc. and any other students requiring a second year course in physical chemistry should choose Chemistry 124 and 121 as prerequisites for Chemistry 224 and 221.

(c) Mathematics 102 and 151 are advised; however Mathematics 130 or equivalent should be taken if a student's second area of concentration is to be in Mathematics, Chemistry or Physics.

Students planning to become professional biologists should be prepared to continue their studies into graduate school and, in preparation for this, are advised to take either an Honours or a Major B.Sc. in either Botany or Zoology, the Honours Programme being preferable. Students not planning to become professional biologists and not anticipating graduate work in this field may obtain basic instruction by taking a General B.Sc. or B.A. Programme with Biology as an area of concentration. Those selecting Biology courses for the B.Ed. (Secondary) degree or diploma programme (secondary curriculum) should consult the Calendar regulations of the Faculty of Education.

Proficiency examinations in one or two modern languages are usually required in graduate studies; students planning graduate work are therefore advised to elect one or two courses in French, German, Russian or other modern languages on departmental recommendation. Such students are further advised of the usefulness of Biometrics in biological work, and should consult the Department regarding Computer training or extra Mathematics courses.

*Students with a D grade in any Biology, Botany or Zoology course are advised not to register for further courses in the Department and may not do so without permission of the Department. Provision exists for writing a supplemental examination to improve a course grade.*

## BIOLOGY

B.Sc. General, with single concentration in Biology: the Basic Programme and one Biology, Botany or Zoology elective.

B.A. General, with single concentration in Biology: As for the B.Sc. General except that Mathematics 102 and 151, Physics 101 or 103 and Chemistry 230 and 231, or 232 and 233 are not required. However, Chemistry 230 and 231 are strongly advised, and are required if Cell Biology is taken.

## BOTANY

Major: the Basic Programme, together with Botany 342 (Plant Anatomy) and not less than nine additional units of Botany or Biology courses chosen in consultation with the Department.

Honours: the Basic Programme, Botany 342 (Plant Anatomy), Biology 304 (Biometrics), Botany 499 (Thesis or Tutorial), and course work to bring the total to at least 60 units, as determined by the Department. Written application for entry into Honours should be made to the Department not later than March 1 of the Third Year. The applicant should have and should maintain a B+ average in all departmental courses.

## ZOOLOGY

Major: the Basic Programme, including both Zoology 202 (Chordate Zoology) and Zoology 301 (Invertebrate Zoology) and not less than nine additional units of Zoology or Biology courses chosen in consultation with the Department.

Honours: the Basic Programme, including Zoology 202 (Chordate Zoology), Zoology 301 (Invertebrate Zoology), Biology 304 (Biometrics), Zoology 499 (Thesis or Tutorial), and course work to bring the total to at least 60 units as determined by the Department. Written application for entry into Honours should be made to the Department not later than March 1 of the Third Year. The applicant should have and should maintain a B+ average in all departmental courses.

# COURSES OFFERED

## BIOLOGY

### BIOL 150. (3) **Principles of Modern Biology**

A broad introduction to biology which covers cell biology, genetics, evolution and ecology, and which surveys the major plant and animal groups. Recent advances in the field, particularly those relating to the biology of man, are discussed.

Text: Keeton, *Biological Science*.

Members of the Department.

(3-3; 3-3)

### BIOL 300. (1 ½) **Genetics**

A lecture course in which the development of the gene concept is discussed in the light of our present knowledge of the nature and function of the genetic material. Consideration will be given to the application of genetic principles to related sciences and to problems directly or indirectly concerning man. Demonstration and discussion sections will be arranged. Should be taken in conjunction with Biology 306.

Texts: Gardner, *Principles of Genetics*.

Dr. Styles. Second term only.

(0-0; 3-0)

### BIOL 304. (3) **Biometrics**

Introduction of the student to layout, analysis and interpretation of biological experiments. Introduction to probability and statistics; probability distributions; sampling theory; tests of hypotheses; analysis of variance; linear and curvilinear regression; covariance; non-parametric tests. Weekly laboratory assignments involving problems. Prerequisites: Freshman mathematics and biology courses.

Texts: Sokal and Rohlf, *Biometry—The Principles and Practices of Statistics in Biological Research*; Sokal and Rohlf, *Statistical Tables*.

Dr. Bergerud.

(2-2; 2-2)

### BIOL 306. (1 ½) **Ecology**

A survey of populations, communities and ecosystems. Should be taken in conjunction with Biology 300.

Texts: Kormondy, *Concepts of Ecology*; Leopold, *Sand County Almanac*; Ehrlich, *The Population Bomb*.

Dr. Bergerud. First term only.

(3-0; 0-0)

### BIOL 310. (3) **Elements of Oceanography**

A non-technical 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 and utilization of the ocean by man. Open to all students in 2nd, 3rd and 4th years except those currently enrolled in Biology 407. Prerequisites: None (Biology 150 is *not* required for this course).

Dr. Littlepage.

(3-0; 3-0)

### BIOL 400. (1 ½) **Principles and History of Biology**

Readings in the history of biology, and readings, seminars and discussions dealing with recent advances in the subject, and their social and economic consequences. Those registered will be expected to carry out considerable outside reading, and to present the results in seminar form.

Texts: Taylor, *The Science of Life*; Dampier, *A Shorter History of Science*; other readings as assigned.

Dr. Hagmeier. Second term only.

(Not offered 1970-71; to be given in 1971-72).

(0-0; 3-0)

### BIOL 402. (3) **Cell Biology**

Introduction to the problems and recent advances in the morphology, integration and differentiation of cells. Laboratory work consists of training in cyto- and histochemistry and techniques in manipulation of living cells.

Members of the Department.

(2-3; 2-3)

BIOL 405. (3) **Cellular Physiology**

Structure and function of cells with particular emphasis on the synthesis, functions, and interactions of their various molecular components. Prerequisites: Botany 331 or Zoology 305, Chemistry 230 and 231, or 233 and 232, and written permission of the instructor.

Texts: DuPraw, *Cell and Molecular Biology*.

Dr. Ashwood-Smith. (2-3; 2-3)

BIOL 406. (3) **Marine Ecology**

A study of biotic associations in the marine environment and the causative mechanisms for association. Prerequisite: Biology 306 and Zoology 301. Pre- or co-requisite: Biology 304. Participation in three or four field trips is required.

Texts: Moore, *Marine Ecology*.

Dr. Ellis. (2-3; 2-3)

BIOL 407. (3) **Oceanography**

Physical and biological oceanography for marine science majors. The open ocean environment, productivity, physiology, and ecology of planktonic organisms are emphasized. Students should be able to make periodic oceanographic cruises of up to one week duration. Prerequisite: High academic standing and permission of the instructor.

Text: Raymond, *Plankton and Productivity in the Oceans*.

Dr. Littlepage. (2-3; 2-3)

BIOL 408. (1½) **The Biology of Pollution**

An introduction to and development of aspects of the biological implications of "pollution" including definition, recognition, measurement and consideration of abatement. Laboratory and field work includes manipulation of organisms or populations exposed to "pollutants," lectures by visiting speakers and seminars presented by class members upon independent projects. Prerequisites or corequisites: Botany 205, Zoology 301, or permission of instructor; recommended: Bacteriology 200.

Texts: To be announced.

Dr. Austin. Second term only. (0-0; 2-3)

BIOL 410. (1½) **Evolution of Biological Systems**

An examination of the theories relating to the origin of life and the forces involved in evolutionary change. Evolution of genes, chromosomes, cell organelles, sex-determining mechanisms, mimicry, and related topics. Adaptive peaks, genetic loads, polymorphisms, related effects of mutation, selection and genetic drift in determining the rate of evolutionary change. Seminar presentations and debate are encouraged. Prerequisites: Biology 300 or permission of instructor.

Texts: Bernal, *The Origin of Life*; Wallace, *Topics in Population Genetics*.

Dr. Styles. First term only. (3-0; 0-0)

BIOL 413. (1½) **Natural Resource Management**

A seminar course considering the origins and nature of problems encountered in management of natural resources, the ecological relationships of man and environment, the influence of man's biological and cultural nature on management decisions; emphasis on discussion; one seminar and one term essay per student. Limit 15 Fourth-year students; course open to students majoring in any discipline. Prerequisite: An ecology or biogeography course, or permission of instructor.

Text: Assigned readings.

Dr. Bell. Second term only. Evening. (0-0; 3-0)

BIOL 420. (3) **Advanced Ecology**

A study of the literature, selected problems, and methods in terrestrial and fresh water ecology. Written reports on field projects and seminar presentation of topics from outside reading are expected. Prerequisite: Written permission of instructor.

Text: To be announced.

Dr. Hagmeier. (2-3; 2-3)

BIOL 424. (1 1/2) **Biological Ultrastructure**

Structure of living organisms as revealed by electron microscopy and interpreted in functional terms. In addition to regular lectures by the instructor, the course will involve special reading assignments and seminar presentations by the students, at least one each. Electron micrographs will be studied. Prerequisites: Botany 342, Zoology 302.

Texts: Assigned readings.

Dr. Mackie. Second term only.

(Not offered 1970-71; to be given in 1971-72).

(0-0; 3-0)

BIOL 426. (1 1/2) **Limnology**

Physical, chemical and biological characteristics of lakes; qualitative and quantitative methods for the measurement of production at various trophic levels; principles of lake management. Written reports on field projects and seminar presentation of topics from outside reading are expected. Prerequisite: Written permission of the instructor.

Texts: To be announced.

Dr. Hagmeier. First term only.

(2-3; 0-0)

BIOL 427. (1 1/2) **Population Ecology**

A study of the characteristics of populations; the effects of birth rate, death rate, ingress and egress on the growth and regulation of animal numbers; current theories will be emphasized. Those registered will be expected to do considerable outside reading, and to participate in seminars. Prerequisite: Biology 306 or permission of instructor.

Texts: To be announced.

Dr. Bergerud. Second term only.

(0-0; 2-3)

BIOL 436. (1 1/2) **Human Genetics**

The study of heredity and gene expression in man. Aspects of population genetics, cytogenetics and developmental genetics that apply directly to man. Advances in medical genetics and genetic technology. History of eugenics movements. Seminar presentations are encouraged and a laboratory report is required at term end. Prerequisite: Biology 300 or permission of instructor.

Texts: Assigned readings; McKusick, *Human Genetics*, 2nd ed.

Dr. Styles. Second term only.

(0-0; 2-3)

BIOL 437. (1 1/2) **Molecular Genetics**

The physical and chemical nature of the gene; the role of the gene in the control of biochemical and developmental processes. The course will involve seminar presentations by the students and a laboratory report at term end. Prerequisites: Chemistry 230 and 231 or 233 and 232; Biology 300 or 332, or permission of instructor.

Text: Watson, *Molecular Biology of the Gene*, and assigned readings.

Dr. Styles. First term only.

(2-3; 0-0)

**BOTANY**

BOTA 205. (3) **The Science of Botany**

A comprehensive study of Botany based largely upon morphology, ecology and phylogeny but incorporating fundamental principles of physiology and development as well as first hand field experience of the wide variety of local plant forms. The course constitutes an introduction to further courses in Botany as well as a background for the non-botanist. Prerequisite or corequisite: Biology 150 or equivalent.

Drs. Austin, Paden, Owens.

(3-3; 3-3)

BOTA 318. (1 1/2) **Vascular Plant Taxonomy**

An introduction to plant systematics; principles of classification, identification, nomenclature; modern approaches, e.g. genealogy, chemotaxonomy, taxometrics; familiarization with selected vascular plant families of British Columbia; techniques of collection and preservation. One seminar per student. A well-prepared collection

of 25 properly annotated and identified plants must be submitted before completion of the course. Prerequisite: Botany 205.

NOTE: A 3 or 4 day field trip to alpine country may be held during registration week to collect plants for later study, and to learn some field techniques. Contact the instructor for details.

Texts: C. L. Porter, *Taxonomy of Flowering Plants*; Harrington & Durrell, *How to Identify Plants*.

Dr. Bell. First term only. (2-3; 0-0)

**BOTA 331. (3) Introductory Plant Physiology**

An introduction to all phases of plant physiology. Growth and flowering, dormancy, mechanisms of ion exchange and salt accumulation, water relations, respiration and photosynthesis; synthesis of carbohydrates, fats and proteins. One research report and one seminar will be given by each student. Prerequisites: Botany 205, and Chemistry 230 and 231, or 233 and 232 or permission of the instructor.

Texts: Salisbury and Ross, *Plant Physiology*.

Dr. Ballantyne. (2-3; 2-3)

**BOTA 342. (3) Vascular Plant Anatomy and Microtechnique**

A study of the development and organization of tissues and organs in vascular plants with special emphasis given to seed plants. Second term is devoted to techniques used in the preparation of microscope slides for anatomical study. Techniques covered include paraffin methods, wood sectioning, chromosome preparations, photomicrography and certain histochemical techniques. Prerequisite: Botany 205.

Texts: Esau, *Anatomy of Seed Plants*; Johansen, *Plant Microtechnique*.

Dr. Owens. (2-3; 2-3)

**BOTA 411. (3) Marine and Freshwater Algae (Phycology)**

A treatment of aspects of the biology of the algae, with ecological observations of the varied marine, freshwater and soil communities of Vancouver Island. Laboratory work involves taxonomy, anatomy (microtechnique), and some physiology (oriented to culture) relevant to both macroscopic and phytoplanktonic types. One research topic paper and participation in collection tours of west coast and lake algae habitats are expected. Prerequisite: Botany 205.

Text: Round, *The Biology of the Algae*.

Dr. Austin. (2-3; 2-3)

**BOTA 415. (3) Introductory Mycology**

A comparative study of morphology and taxonomy of the fungi with emphasis on higher terrestrial forms; isolation and culture methods; designed to impart a basic understanding of development, life cycles, and relationships. A moderate number of assignments will be made in the recent literature to supplement the text. A collection of at least twenty genera is required; it is recommended that this be started during the preceding spring. Prerequisite: Botany 205.

Text: Alexopolous, *Introductory Mycology*.

Dr. Paden. (2-3; 2-3)

**BOTA 418. (1½) Plant Ecology**

A study of plant communities in the context of ecosystems; vegetation structure, composition, productivity; quantitative methods of community description, classification, environmental measurement. Normally one seminar and one project per student. Field trips. A week field trip may be held in early May, to some part of Southern British Columbia. Prerequisites or corequisites: Botany 318, Biology 306, or permission of instructor.

Texts: Recommended but not required: Daubenmire, *Plant Communities*; Phillips, *Methods of Vegetation Study*.

Dr. Bell. Second term only. (0-0; 2-3)

BOTA 421. (1½) **Plant Morphogenesis**

A study of the inception and development of form and structure in plants with emphasis given to the experimental study of meristems, leaves, buds, flowering and differentiation. The laboratory will emphasize tissue culture and histochemical techniques in morphogenetic studies. A term paper or project is required. Prerequisite: Botany 205; Prerequisite or corequisite: Botany 342, Botany 331 or permission of instructor.

Text: Wardlaw, *Plant Morphogenesis*.

Dr. Owens. First term only. (2-3; 0-0)

BOTA 422. (1½) **Physiology of Plant Growth & Development**

An advanced study of physiological aspects of plant growth, flower initiation, dormancy and senescence. Prerequisite: Botany 331 or permission of the instructor.

Text: Steward, *Growth and Organization in Plants*.

Dr. Ballantyne. Second term only. (0-0; 2-3)

BOTA 423. (1½) **Plant Metabolism**

A study of photosynthesis, respiration, ion uptake, nitrogen relations and cell wall metabolism. Prerequisite: Botany 331 or permission of instructor.

Text: Bonner and Varner, *Plant Biochemistry*.

Dr. Ballantyne. First term only. (2-3; 0-0)

BOTA 44B. (1-3) **Directed Studies in Botany**

BOTA 499. (3) **Thesis or Tutorial**

## ZOOLOGY

ZOOL 202. (3) **Chordate Zoology**

A study of the structural and functional adaptations of Chordates in relations to their evolutionary history. Quarterly laboratory reports incorporating the results of laboratory dissections, seminars, and library research are required. Prerequisite or corequisite: Biology 150 or equivalent.

Text: Romer, *The Vertebrate Body*; or Young, *The Life of Vertebrates*.

Dr. McInerney. (2-3; 2-3)

ZOOL 301. (3) **Invertebrate Zoology**

Biology of invertebrate animals, including taxonomy, morphology, life histories and phylogeny; particular emphasis is placed on modern concepts and contemporary research. Some supplementary reading, including recent journals, is encouraged.

Text: Barnes, *Invertebrate Zoology*, 2nd edition; Bullough, *Practical Invertebrate Anatomy*, 2nd edition.

Dr. Fontaine. (2-3; 2-3)

ZOOL 302. (3) **Microanatomy**

The general aim of this course is to understand the structure and function of cells, tissues and organs of higher vertebrates at the microscopic level, including reproduction and development. Emphasis is placed on the human. Reading is normally limited to suitable textbook material, however, opportunities exist for limited outside reading. Essays, reports, papers or drawings are not required. Enrolment limits and criteria for entry: 40 (2 laboratory sections) third or fourth year majors and pre-professional students or permission of the instructor. Prerequisites and corequisites: Zoology 202; Zoology 305 is desirable.

Texts: Copenhagen, *Bailey's Textbook of Histology*; Patten, *Foundations of Embryology*.

Dr. Algard. (2-3; 2-3)

ZOOL 303. (3) **Vertebrate Physiology**

Functional dynamics of whole vertebrate organisms and their major organ systems presented in mechanistic and quantitative terms. Exemplary material will mostly entail mammals, but adaptive variation within mammals and in other vertebrate classes will be examined. Laboratory work will concentrate on measurements of functional processes in living rats and other vertebrates. The development of surgical techniques for acute studies will be essential. Prerequisites recommended: Chemistry 230 and 231 or 233 and 232; recommended: Physics 101 or 103 and Zoology 202.

Texts: To be announced.

Dr. Hayward. (2-3; 2-3)

ZOOL 305. (3) **General and Cellular Physiology**

An introduction to fundamental aspects of physiology, such as cell organelle function, energy exchange, biosynthesis and enzymology, followed by a comparative treatment of the major animal physiological systems. Homeostasis and evolution are the main themes of the course. Mimeographed lecture outlines with tables, graphs, diagrams and references are provided. These cover all the areas within the scope of the course and textbooks and references are regarded as supplemental. Approximately ten laboratory reports and two essays are required throughout the year. Corequisite: Chemistry 230 and 231, or 233 and 232.

Texts: To be announced.

Dr. Reid. (2-3; 2-3)

ZOOL 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 laboratory report will be required. Field collecting trips will be arranged wherever possible. Prerequisites or corequisites: Biology 150; Zoology 301 *recommended* as a co-requisite.

Text: Borror & DeLong, *An Introduction to the Study of Insects*.

Dr. Ring. Second term only. (0-0; 2-3)

ZOOL 403. (3) **Comparative and Experimental Embryology of Marine Organisms**

A study of the embryonic development of representative marine organisms with experimental analysis of certain developmental phenomena. Results of individual projects undertaken in the second term will be reported in seminars. Limit 12 students. Prerequisite: Zoology 301 and permission of the instructor.

Texts: To be announced.

Dr. Fields. (2-3; 2-3)

ZOOL 404. (3) **Advanced Physiology**

Special topics in the field of physiology. Prerequisites: Chemistry 230 and 231 and Zoology 303 or 305.

Texts: To be announced.

Members of the Department. (2-3; 2-3)

ZOOL 412. (3) **Advanced Entomology**

A study of recent advances in the field of entomology with special emphasis on insect physiology. Students will be expected to set up and conduct many of their own experiments, and to familiarize themselves with the recent literature from leading journals of insect physiology. Both written and laboratory term reports will be required. Limit of 12 students. High standing in Zoology 312 or Zoology 435, or equivalent and permission of the instructor. Prerequisites or corequisites: Zoology 312 or Zoology 435.

Text: Wigglesworth, V.B., *Principles of Insect Physiology*.

Dr. Ring. (2-3; 2-3)

ZOOL 414. (3) **Marine Invertebrate Zoology**

The course will provide an opportunity for study in depth and discussion of certain selected topics in marine invertebrate zoology which are of particular interest

at the present time because of recent, significant research or because they are relevant to important economic problems. Practical work and library readings will be assigned and evaluated on an individual basis. There will be field trips during the fall. The departmental launch will be used for local collecting, project work and SCUBA operations. Enrolment limited to 12. Prerequisites: Zoology 301 or equivalent and consent of the instructor.

Texts: Students should possess a good, modern textbook of invertebrate zoology for general reference.

Dr. Mackie.

(2-3; 2-3)

**ZOOL 416. (3) Biology of the Vertebrates**

The course will outline briefly the geological history of British Columbia with special reference to the post-pleistocene period and its effect upon the present distribution of the fauna, particularly the vertebrates. The fishes, amphibians, reptiles, birds and mammals of the Province will be reviewed stressing some of the characteristic features and natural history of each class. The laboratory section will be devoted to the classification of British Columbia vertebrates and their identification through the use of keys and current literature. One or two field trips will be undertaken if possible.

Texts: To be announced.

(2-3; 2-3)

**ZOOL 417. (1½) Zoological Microtechnique**

Lectures and laboratories in the principles and practice of zoological microtechnique, including treatment of histo- and cytochemistry, advanced microscopic techniques and photomicrography. Students will prepare microscope slides and photomicrographs for evaluation. Limited to 24 students. Prerequisite or corequisite: Zoology 302 is advised.

Text: Humason, *Animal Tissue Techniques*, 2nd edition.

Dr. Mackie. First term only.

(1-4; 0-0)

**ZOOL 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 microscopic material. A research-type project is assigned involving substantial reading of original literature. Prerequisites: Zoology 417; Zoology 302 advised as a pre- or corequisite.

Text: To be announced.

Dr. Fontaine. Second term only.

(0-0; 2-3)

**ZOOL 425. (3) Environmental Physiology**

The adaptations of living organisms to temperature, light, ionizing radiations, gases, pressure, the chemical environment, etc. The aim of the course is to develop a comprehensive picture of the biokinetic zone and the spectrum of physiological mechanisms by means of which life is possible within this zone. Laboratory work consists of 3 or 4 directed research projects, reports written in scientific format and seminar presentation of reports. Prerequisite or corequisite: Zoology 305.

Texts: Selected reading.

Dr. McInerney. (Offered in 1971-72 and alternate years).

(2-3; 2-3)

**ZOOL 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: Written permission of the instructor.

Texts: To be announced.

Dr. Hagueier. Second term only.

(0-0; 2-3)

**ZOOL 430. (3) Physiology of Marine Animals**

Aspects of physiology pertaining to the marine environment: osmoregulation, pressure effects, flotation, filter-feeding, bioluminescence, animal associations, etc. Keynote lectures are given by the instructor in each area under study; a majority of

the regular meetings of the class are seminar sessions prepared by the students. In the laboratory, instruction is given in some advanced techniques; the main work of the lab is a series of research projects. Three laboratory reports, two term papers, and two seminars are required. Extensive outside reading is essential. Enrolment limits and criteria for entry: by permission of the instructor. Prerequisite: Zoology 305.

Text: Nicol, *Biology of Marine Animals*.

Dr. Reid. (1-4; 1-4)

ZOOL 431. (3) **Ichthyology**

Selected topics on the morphological, physiological and behavioural adaptations of fishes. Laboratory work consists of three to four directed research projects, reports written in scientific format and seminar presentation of results. Prerequisite or co-requisite: Zoology 202.

Text: Marshall, *The Life of the Fishes*.

Dr. McInerney. (Offered in 1970-71 and alternate years). (2-3; 2-3)

ZOOL 432. (3) **Parasitology**

Study of the biology and taxonomy of parasitic organisms. Prerequisite: Zoology 301.

Texts: To be announced. (2-3; 2-3)

ZOOL 433. (3) **Experimental Morphogenesis**

Seminars, directed reading, discussion and lectures in the analysis of embryonic development by experimental methods, including differentiation of cells and tissues and their integration during morphogenesis. Outside reading, collation of relevant literature and synthesis of information for presentation in seminars is mandatory. Enrolment limited. Prerequisites or corequisites: Zoology 302, 305 and by permission of instructor.

Texts: None.

Dr. Algard. (1-4; 1-4)

ZOOL 434. (3) **Ethology**

A study of the phylogeny, functions and processes of animal behaviour from both field-descriptive and laboratory-experimental points of view. Pre- or corequisites: Biology 304 (Biometrics) and Psychology 100. (The course will be given in association with Psychology 434, Animal Behaviour, and students may not register for both courses.)

Text: Marler & Hamilton, *Mechanisms of Animal Behaviour*.

Dr. Ellis. (2-2; 2-2)

ZOOL 438. (1½) **Selected Topics in Advanced Invertebrate Zoology I**

Echinoderms will be treated in depth. Lectures, seminars, reading assignments. Laboratory work informal, assigned individually. Prerequisite or corequisite: Zoology 301.

Texts: To be announced.

Dr. Fontaine. First term only. (2-3; 0-0)

(Not offered in 1970-71; will be offered in 1971-72.)

ZOOL 439. (1½) **Selected Topics in Advanced Invertebrate Zoology II**

Coelenterates will be treated in depth. Lectures, seminars, reading assignments. Laboratory work informal, assigned individually. Prerequisite or corequisite: Zoology 301.

Texts: To be announced.

Dr. Mackie. Second term only.

(Not offered in 1970-71; will be offered in 1971-72.) (0-0; 2-3)

ZOOL 448. (1-3) **Directed Studies in Zoology**

ZOOL 499. (3) **Thesis or Tutorial**

## GRADUATE COURSES

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

Admission to any graduate course requires prior permission of the Instructor.

- BIOL 510. (3) **Advanced Topics in Ichthyology**  
Dr. McInerney.
- BIOL 511 (1-3) **Marine Invertebrate Zoology**  
Members of the Department.
- BIOL 512. (3) **Advanced Marine Ecology**  
Dr. Ellis.
- BIOL 513. (3) **Topics in Vertebrate Anatomy and Embryology**  
Dr. Algard.
- BIOL 514. (3) **Zooplankton Ecology**  
Dr. Littlepage.
- BIOL 515. (3) **Physiology of Marine Animals**  
Dr. Reid.
- BIOL 517. (3) **Oceanography II**  
Dr. Littlepage.
- BIOL 519. (1-3) **Animal Ecology**  
Dr. Bergerud.
- BIOL 520. (3) **Advanced Mycology**  
Dr. Paden.
- BIOL 521. (3) **Advanced Phycology**  
Dr. Austin.
- BIOL 522. (1-3) **Advanced Plant Ecology**  
Dr. Bell.
- BIOL 523. (2) **Advanced Plant Physiology**  
Dr. Ballantyne.
- BIOL 524. (1-3) **Plant Anatomy and Morphology**  
Dr. Owens. (Not offered in 1970-71).
- BIOL 525. (3) **Recent Advances in Insect Physiology**  
Dr. Ring.
- BIOL 526. (1½) **Topics in Biological Ultrastructure**  
Dr. Mackie. (Offered in alternate years. Not offered in 1970-71.)
- BIOL 527. (1½) **Advanced Topics in Cell Physiology**  
Dr. Ashwood-Smith.
- BIOL 528. (1-3) **Topics in Advanced Invertebrate Zoology**  
Members of the Department.
- BIOL 529. (1-3) **Advanced Parasitology**
- BIOL 530. (2) **Recent Advances in Genetics**  
Dr. Styles.
- BIOL 531. (1½) **Selected Topics in Vertebrate Physiology**  
Dr. Hayward. (Not offered in 1970-71.)
- BIOL 532. (3) **Advanced Techniques in Cell Biology**  
Dr. Ashwood-Smith.
- BIOL 533. (3) **Topics in Advanced Embryology of Marine Invertebrates**  
Dr. Fields.

BIOL 534. (1-3) **Problems in Environmental Management**  
Dr. Bell.

BIOL 535. (1-3) **Advanced Topics in Zoogeography**  
Dr. Hagmeier.

BIOL 536. (1-3) **Advanced Topics in Ecology**  
Dr. Hagmeier.

BIOL 550. (1-6) **Directed Studies**

BIOL 560. (1-3) **Seminar**

BIOL 599. (credit to be determined) **Thesis**

BIOL 699. (credit to be determined) **Ph.D. dissertation**

**All graduate students are expected to register for Biology 560 — Seminar.**

# DEPARTMENT OF CHEMISTRY

- Stephen A. Ryce, B.A., Ph.D. (*Brit. Col.*), Professor and Head of the Department.  
Lewis J. Clark, B.A. (*Brit. Col.*), M.Sc. (*Wash.*), Ph.D. (*Oregon State*), Professor Emeritus.  
Alfred Fischer, B.Sc., M.Sc., Ph.D. (*N.Z.*), Professor.  
D. J. MacLaurin, B.A.Sc. (*Brit. Col.*), M.S., Ph.D. (*Lawrence*), P.Eng., Professor.  
Robert N. O'Brien, B.A.Sc., M.A.Sc. (*Brit. Col.*), Ph.D. (*Manchester*), Professor.  
Wilma E. Elias, B.A., M.A. (*Sask.*), Ph.D. (*Brit. Col.*), Associate Professor.  
Sidney G. Gibbins, B.S. (*Cal. Inst. Tech.*), Ph.D. (*Wash.*), Associate Professor.  
Alexander D. Kirk, B.Sc., Ph.D. (*Edinburgh*), Associate Professor.  
Kenneth C. Moss, B.Sc., A.R.C.S., D.I.C., Ph.D. (*London*), Associate Professor. (Sabbatical leave 1970-71).  
Frank P. Robinson, A.B. (*Fisk*), Ph.D. (*Alta.*), Associate Professor (Sabbatical leave 1970-71).  
Walter J. Balfour, B.Sc. (*Aberdeen*), Ph.D. (*McMaster*), Assistant Professor.  
Graham R. Branton, B.Sc., Ph.D. (*Southampton*), Assistant Professor.  
Gordon W. Bushnell, M.A., B.Sc. (*Oxon.*), Ph.D. (*West Indies*), Assistant Professor.  
T. W. Dingle, B.Sc., Ph.D. (*Alta.*), Assistant Professor.  
Keith R. Dixon, B.A. (*Cantab.*), Ph.D. (*Strathclyde*), Assistant Professor.  
Tikam C. Jain, B.Sc., M.Sc., Ph.D. (*Agra*), Assistant Professor.  
Paul R. West, B.Sc., Ph.D. (*McMaster*), Assistant Professor.  
Arthur C. Brett, B.Sc. (*U.K.C.*), Ph.D. (*U.M.K.C.*), Postdoctoral Fellow.  
Terrance K. Davies, B.Sc. (*U. of Vic.*), Senior Scientific Assistant.  
Karel Hartman, LIRI, B.Sc. (*U. of Vic.*), Senior Laboratory Instructor.

## GRADUATE PROGRAMMES

The Department offers opportunities for study leading to the M.Sc. and Ph.D. degrees. For information on the requirements for these, see the section in this Calendar referring to the Faculty of Graduate Studies.

## UNDERGRADUATE PROGRAMMES

Changes in the third and fourth year courses are being considered. Senior students should consult with the department well before registration in September 1970.

The Chemistry Department offers an Honours and a Major programme leading to the B.Sc. degree, and a concentration in Chemistry in the General programme of either the B.Sc. or B.A. degrees. Students are invited and advised to consult with the Department when considering any courses or programmes in Chemistry. Enquiries about courses or programmes in Chemistry or arrangements for consultations can be made at any time through the Chemistry Department office, or directly with a member of the Chemistry Faculty.

Those considering graduate work in Chemistry are advised to acquire a reading knowledge of German, Russian, French, or other appropriate language as a part of their undergraduate programme.

All students registering for any chemistry course(s) that include laboratory work are required to purchase a Chemistry Laboratory Credit Card (\$6.00) at registration. Any unused portion of this credit is refundable. Safety glasses must be worn by all students in laboratories. Safety glasses are available in the University Book Store.

Courses required by the Chemistry Department for a concentration in Chemistry under the General Programme:

Chemistry 121, 124, 221, 224, 231, and 233, Physics 101 or 121 and 212, Mathematics 130, and 230 or 231, in their necessary sequence, together with nine units of Chemistry courses numbered above 300 for which the required prerequisites have been taken.

Courses required by the Chemistry Department for the Major Programme:

*First Year:* Chemistry 121, 124, Physics 121 (or 101), Mathematics 130.

*Second Year:* Chemistry 221, 224, 231, 233, Physics 212, Mathematics 230 or 231.

*Third Year:* Chemistry 314, 326, 331, 334, 344  
3 units of Mathematics chosen from Mathematics 110, 170, 210, 232, 303, 323, 330, or 331 are strongly recommended.

*Fourth Year:* At least one of Chemistry 424, 435 or 445.

In special cases, students majoring in Chemistry may, after consultation with the Department of Chemistry, postpone some of the above Third Year courses to the Fourth Year.

Courses required by the Chemistry Department for the Honours Programme:

*First Year:* Chemistry 121, 124, Physics 121 (or 101), Mathematics 130.

*Second Year:* Chemistry 221, 224, 231, 233, Physics 212, Mathematics 230 or 231.

*Third Year:* Chemistry 314, 326, 331, 334, 344, 399  
3 units of Mathematics chosen from Mathematics 110, 170, 210, 232, 303, 323, 330 or 331 are strongly recommended.

*Fourth Year:* Chemistry 424, 435, 445, 499.

Permission of the Department is required for admission into each of the Third and Fourth Years of the Honours programme. For this, the Department is to be consulted each year, by interview or by letter no later than one month before the last day for submission of applications for admission or re-admission to the University.

Students who have fulfilled the requirements given in this Calendar for admission to a B.Sc. Honours programme will be admitted to the Third Year of the Chemistry Honours programme. With almost no exception, 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 programme.

*Students with a D grade in any course in chemistry are advised not to register for a following course in chemistry and may not do so without written permission of the Department. It should be noted that in the section of this Calendar on supplemental examinations, provision exists for writing a supplemental examination to improve a course grade.*

## COURSES OFFERED

### FIRST YEAR CHEMISTRY

The first year chemistry courses (Chemistry 111, 120, 121 and 124) are designed and arranged to provide maximum flexibility in accommodating the differing backgrounds and needs of students. While the specific details of each course as given below should be carefully studied, the following general notes may be helpful.

Two lecture courses (no laboratory), Chemistry 120 and Chemistry 124, are offered. Chemistry 120 is designed for students who do not plan to concentrate on chemistry. However it is suitable as a prerequisite to Chemistry 230 and some pre-professional programmes (see pp. 306-307). Chemistry 124 is the normal first chemistry course in degree programmes in chemistry.

Two laboratory courses, Chemistry 111 and Chemistry 121, are also offered. Any student planning any further chemistry course(s) either at this University or elsewhere, and students planning to enter certain professional schools (see pp. 306-307), should take a laboratory course as well as a lecture course. In certain cases though, a lecture course only may be completely suitable to the student's academic plans.

**CHEM 111. (1) General Chemistry Laboratory**

A general laboratory course illustrating the properties of chemical systems.

Credit will not be given for both Chemistry 111 and 121.

Pre- or corequisite: Chemistry 120.

Text: To be announced.

Dr. Dingle and members of the Department.

(0-3\*; 0-3\*)

**CHEM 120. (3) General Chemistry**

Introduction to the modern theory of atomic structure and its relation to chemical bonding, molecules and states of matter, Stoichiometry. Equilibrium in chemical systems. Periodic, organic, surface and nuclear chemistry.

Credit will not be given for both Chemistry 120 and 124.

Prerequisites: Mathematics 12, Chemistry 11 or 12 or their equivalents. Students desiring to register in Chemistry 120, but who do not have these prerequisites, should consult the Department well prior to registration for permission to register. If permission to enter Chemistry 120 is granted, then registration must be in Lecture Section number 1 which has four lectures per week.

Text: To be announced.

Dr. Dingle and members of the Department.

(3-0; 3-0)

- NOTES: 1. Chemistry 120 provides a comprehensive lecture course in General Chemistry at the First Year University level, and is suitable for all fields and programmes at this University, except those which include either Chemistry 224 or 233. Note that certain pre-professional programmes require Chemistry 124 (see pp. 306 - 307).
2. Chemistry 111 may be a necessary course to accompany Chemistry 120, depending upon a student's interests and academic plans. It will be noted that Chemistry 111 is prerequisite to Chemistry 230. The student should review his need for Chemistry 111 in terms of his probable academic programme.
3. During the first term only, the Department will counsel concerning, and consider applications for, transfer from Chemistry 120 to Chemistry 124, (and from Chemistry 111 to Chemistry 121) with the purpose of assisting students to re-assess their selection of the First Year chemistry course best suited to their academic needs.

**CHEM 121. (1) Introductory Chemistry Laboratory**

A laboratory course illustrating the behaviour of chemical systems and some of the basic techniques associated with quantitative chemical experimentation.

Pre- or corequisite: Chemistry 124.

Text: To be announced.

Dr. MacLaurin and members of the Department.

(0-3; 0-3)

NOTE: Chemistry 121 is a prerequisite for each of Chemistry 224 and 233.

**CHEM 124. (3) Introductory Physical and Inorganic Chemistry — Part I**

Introduction to the modern theory of atomic structure and its relation to chemical bonding, molecules and states of matter. Stoichiometry. Equilibrium in chemical systems. Introduction to thermochemistry, thermodynamics and chemical kinetics.

Prerequisites: Mathematics 12 and Chemistry 12 or their equivalents. Students desiring to register in Chemistry 124, but who do not have these prerequisites, should consult the Department well prior to registration for permission to register. If permission to enter Chemistry 124 is granted, then registration will be in Lecture Section number 1 which has four lectures per week.

Pre- or corequisite: Chemistry 121.

Text: To be announced.

Dr. MacLaurin and members of the Department.

(3-0; 3-0)

- NOTES: 1. Chemistry 124 is the first part of a Chemistry 124-224 sequence and is thus an essential first course in chemistry for students planning a further programme in chemistry in this Department which includes either Chemistry 224 or 233.

\*Laboratories on alternate weeks.

2. During the first term only, the Department will counsel concerning, and consider applications for, transfer from Chemistry 124 to Chemistry 120 (and from Chemistry 121 to Chemistry 111) with the purpose of assisting students to re-assess their selection of the First Year chemistry course best suited to their academic needs.

**CHEM 221. (1) Introductory Physical and Inorganic Chemistry Laboratory — Part II**

Experimental application of solution equilibria, acid-base and redox theory in chemical analysis.

Pre- or corequisite: Chemistry 224.

Text: Skoog and West, *Fundamentals of Analytical Chemistry*.

Dr. Dixon.

(0-4; 0-4)

**CHEM 224. (2) Introductory Physical and Inorganic Chemistry — Part II**

Chemical kinetics, phase rule and introduction to electrochemistry. Chemistry of the main group elements with emphasis on the application of the basic principles of physical chemistry. Quantitative chemical analysis. Introduction to spectroscopy.

Prerequisites: Chemistry 121 and 124, or 111 and 120, with permission of the department. Chemistry 221 (normally as corequisite).

Text: Cotton and Wilkinson, *Advanced Inorganic Chemistry*.

Dr. Dixon.

(3-0; 3-0)

**CHEM 230. (2) General Organic Chemistry**

A systematic study of the main principles of organic chemistry based on modern theory. Descriptive chemistry of aliphatic, aromatic and heterocyclic compounds.

This course is designed for students preparing to enter professional schools such as Medicine, Pharmacy, Dentistry, Forestry, and Nursing. (see pp. 306 - 307). Credit will not be given for both Chemistry 230 and 233.

Prerequisites: Chemistry 111 and 120, or 121 and 124.

Corequisite: Chemistry 231.

Text: To be announced.

Drs. Elias, West.

(3-0; 3-0)

**CHEM 231. (1) General Organic Chemistry Laboratory**

Basic operations and representative reactions and preparations of organic chemistry.

Prerequisite: Chemistry 111 and 120, or 121 and 124.

Corequisite or Prerequisite: Chemistry 230 or 233.

Text: To be announced.

Dr. West.

(0-3; 0-3)

**CHEM 233. (2) Introductory Organic Chemistry**

An introduction to theoretical, physical and descriptive organic chemistry as exemplified by a study of the properties of aliphatic and simple aromatic compounds.

This course is designed for students planning a further programme in Chemistry in this Department.

Credit will not be given for both Chemistry 233 and 230.

Prerequisite: Chemistry 121 and 124 (or 111 and 120 with permission of the Department).

Corequisite: Chemistry 231.

Text: To be announced.

Dr. Fischer.

(3-0; 3-0)

**CHEM 300. (3) The Science of Chemistry**

A lecture course with demonstrations, but with no laboratory or advanced mathematics. The nature and behaviour of matter will be examined from the experimental, historical and philosophical backgrounds of chemistry. This course provides the opportunity for students in other disciplines, particularly those in areas other than the physical sciences, to broaden their cultural background by including a suitable consideration of a science which plays an important role in modern society.

This senior level course involves independent reading and use of Library resources, suited to students acquainted with study at the university level. It is complete in itself, but study in this area may be continued through Chemistry 400.

Normally credit for this course will not be counted toward degree programmes in chemistry.

Prerequisites: Successful completion of fifteen units of study at University level.

Text: To be announced. (3-0; 3-0)

**CHEM 314. (3) Instrumental Analysis and Molecular Structure Determination**

Modern techniques of chemical analysis and molecular structure determination including chromatography, spectroscopy, mass spectrometry, radiochemical-, electrochemical- and diffraction methods.

Text: To be announced.

Prerequisite: Chemistry 221 and 224 or permission of the Department.

Dr. Branton. (2-4; 2-4)

**CHEM 326. (3) Inorganic Chemistry**

Theories of chemical bonding, including valence bond, molecular orbital and ligand field theories. The chemistry of the transition elements.

Prerequisite: Chemistry 221 and 224, Physics 212, Mathematics 231 or 230 or permission of the Department.

Texts: Cotton and Wilkinson, *Advanced Inorganic Chemistry*; and others to be announced.

Dr. Bushnell. (3-4; 3-4)

**CHEM 331. (1½) Organic Qualitative Analysis**

The identification of organic compounds by chemical and spectroscopic methods.

Prerequisites: Chemistry 231 and 233 (Chemistry 230 with permission of the Department).

Texts: To be announced.

Dr. West. (3-3; 0-3)

**CHEM 334. (1½) Intermediate Organic Chemistry**

Modern theories of organic chemistry, general principles of physical organic chemistry, electronic and steric factors in organic compounds; chemical, kinetic, steric, and isotopic criteria of organic reaction mechanisms.

Prerequisite: Chemistry 233 (Chemistry 230 with permission of the Department).

Texts: To be announced.

Dr. West. (0-0; 3-0)

**CHEM 344. (3) Physical Chemistry**

Introductory quantum mechanics and statistical mechanics. Kinetic theory of gases, thermodynamics, phase equilibria, solutions, electrochemistry, and chemical kinetics.

Prerequisites: Chemistry 221 and 224, Physics 212, Mathematics 230 or 231.

Text: To be announced.

Laboratory Manual: Crockford and Nowell, *Laboratory Manual of Physical Chemistry*.

Dr. Kirk. (3-3; 3-3)

**CHEM 399. (1) Research Participation and Seminar**

Introduction to departmental research. Seminar report. For Chemistry Honours students only.

Dr. O'Brien and members of the Department. (0-0-2; 0-0-2)

**CHEM 400. (3) Chemistry and the Sciences**

A continuation of the study begun in Chemistry 300 of the examination of the nature and behaviour of matter from the experimental, historical and philosophical backgrounds of chemistry, through a study in depth of selected topics from an interdisciplinary point of view.

Normally credit for this course will not be counted toward degree programmes in chemistry.

Prerequisites: Chemistry 300.

Text: To be announced.

(First offered not earlier than 1971-72). (3-0; 3-0)

**CHEM 424. (3) Advanced Inorganic Chemistry**

Selected topics in modern inorganic chemistry, including the chemistry of coordination compounds, organometallic compounds and metal hydrides. Solid state chemistry.

Prerequisites: Chemistry 326. Chemistry 344 recommended.

Texts: Cotton and Wilkinson, *Advanced Inorganic Chemistry*, and other references.

Drs. Bushnell, Dixon, Gibbins. (3-4; 3-4\*)

**CHEM 435. (3) Advanced Organic Chemistry**

Current topics in organic chemistry including natural products, homo- and heterocyclic systems, molecular rearrangements and photochemistry. In addition, general methods for the syntheses of organic compounds and applications of spectroscopy in structural and synthetic chemistry will be treated.

Prerequisites: Chemistry 331 and 334.

Drs. Elias, Jain. (3-4; 3-4\*)

**CHEM 445. (3) Advanced Physical Chemistry**

Quantum mechanics, atomic and molecular spectroscopy, thermodynamics, statistical mechanics, chemical kinetics, electrochemistry and surface chemistry.

Prerequisites: Chemistry 344, Mathematics 230 or 231 or 330 or 331. Chemistry 326 recommended.

Drs. Balfour, Dingle, Kirk, O'Brien. (3-4; 3-4\*)

**CHEM 490. (1-3) Directed Studies**

**CHEM 499. (3) Thesis**

Experimental research under the direction of Faculty. For Chemistry Honours students only.

Dr. MacLaurin and members of the Department. (0-6; 0-6)

## GRADUATE COURSES

Students should consult the Department to determine the graduate courses offered in any particular year.

**CHEM 500. (2) Research Methods and Techniques**

**CHEM 504. (2) Surface and Colloid Chemistry**

**CHEM 509. (1) Seminar**

**CHEM 522. (1) Current Topics in Inorganic Chemistry**

**CHEM 523. (2) Organometallic Chemistry**

**CHEM 525. (2) Theoretical Inorganic Chemistry**

**CHEM 526. (2) Topics in Advanced Inorganic Chemistry**

**CHEM 533. (2) Organic Synthesis**

**CHEM 536. (2) Carbohydrate Chemistry**

**CHEM 538. (2) Biogenesis of Natural Products**

\* Chemistry 424, 435, and 445 share a total of two 4-hour laboratory periods per week. A student will be required to take appropriate laboratory work in the course or courses elected.

- CHEM 545. (1) **Reaction Kinetics and Reaction Rate Theory**
- CHEM 546. (1) **Spectroscopy and the Chemistry of Excited States**
- CHEM 550. (1) **Elementary Applications of Group Theory**
- CHEM 554. (2) **Quantum Mechanics**
- CHEM 555. (2) **Statistical Mechanics**
- CHEM 556. (2) **Topics in Advanced Physical Chemistry**
- CHEM 565. (2) **Theory and Application of Nuclear Magnetic Resonance Spectroscopy**
- CHEM 566. (2) **Chemical Crystallography**
- CHEM 577. (2) **Nuclear and Radio Chemistry**
- CHEM 583. (2) **Wood Chemistry**
- CHEM 590. (1-3) **Directed Studies**
- CHEM 599. (Credit to be determined but normally 6 units in this Department). **M.Sc. Thesis**
- CHEM 630. (2) **Current Topics in Organic Chemistry**
- CHEM 633. (1) **Topics in Advanced Organic Chemistry**
- CHEM 634. (2) **Advanced Physical Organic Chemistry**
- CHEM 636. (2) **Chemistry of Heterocyclic Compounds**
- CHEM 638. (2) **Topics in Natural Products Chemistry**
- CHEM 645. (1) **Advanced Electrochemistry**
- CHEM 655. (2) **Chemical Thermodynamics**
- CHEM 699. (Credit to be determined). **Ph.D. Dissertation**

# DEPARTMENT OF CLASSICS

Geoffrey J. D. Archbold, B.A. (*Brit. Col.*), M.A. (*Cincinnati*), Assistant Professor and Acting Chairman of the Department.

Herbert H. Huxley, M.A. (*Cantab.*), F.I.A.L., Professor. (Leave of absence 1970-71).

John Carson, M.A. (*Oxon.*), Associate Professor.

John H. Molyneux, B.A., M.A. (*Cantab.*), Ph.D. (*Sheffield*), Visiting Associate Professor.

Peter L. Smith, B.A. (*Brit. Col.*), M.A., Ph.D. (*Yale*), Associate Professor.

Samuel E. Scully, B.A., M.Litt. (*Bristol*), Lecturer.

Gordon S. Shrimpton, M.A. (*Brit. Col.*), Lecturer.

Derek A. Tumber, B.A. (*Liverpool*), M.A. (*Alta.*), Lecturer.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

General — (concentration in Classics): *First and Second Years*: the completion of a course at the 200 level in one or more of the three areas (Latin, Greek, or Classical Studies). *Third and Fourth Years*: 9 units in Departmental offerings numbered above 300.

Major (Classics) — *First and Second Years*: at least two courses in the Department, with the study of either Latin or Greek carried (if possible) to the 200 level; *Third and Fourth Years*: 15 units in Departmental offerings numbered above 300.

Honours (Classics) — Students of good general standing who have achieved a First Class or high Second Class standing in Latin or Greek during their first two years may be admitted, with departmental permission, into an intensified Honours programme. Interested students should consult the Chairman of the Department as early as possible in their first two years.

Individual Honours programmes in Classics may have an emphasis on either Latin or Greek, and on literary, historical, or philosophical enquiry. Although individual requirements will vary, students will take 30-36 units in their last two years, of which 18 units will be chosen from general upper-year courses in Classical Studies, Greek, and Latin, and 6 units from the special Honours courses. Honours students in Classics are normally expected to study both Greek and Latin.

If so advised by the Department, an Honours student may elect not more than one course each year in Latin or Greek for *double credit* (i.e., 6 units). In this event, he will be expected to study the subject in much greater depth than general students, and will be required to submit a considerable amount of written work.

Prerequisites for admission to Third Year: two courses in Latin and at least one in Greek; or two courses in Greek and at least one in Latin. Classical Studies 100 is recommended but not required.

NOTE: Graduating Honours students will be expected to have a reading knowledge of French or German.

## COURSES OFFERED

### GREEK

Greek 200 is open to students who have completed Greek 100 or its equivalent, and is a prerequisite to Greek courses at the 300 level.

#### 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; the main constructions; practice in sentences into Greek and easy prose; sight translation. Tests and examinations will be given during the course of the year.

Texts: A general text is to be announced; Goodwin and Gulick, *Greek Grammar*; it is recommended that students purchase a Liddell and Scott *Intermediate Greek-English Lexicon* for this course. (4-0; 4-0)

#### GREE 200. (3) **Introduction to Greek Literature**

Prerequisite: Greek 100 or its equivalent. Review of grammar, mainly through reading and sentences into Greek. Some sight translation. Careful reading of the

following works: Plato, *Euthyphro*; Euripides, *Alcestis*; and readings in Xenophon, Lysias and Thucydides. Tests and examinations will be given during the course of the year.

Texts: North and Hillard, *Greek Prose Composition*; Liddel and Scott, *Intermediate Greek-English Lexicon*; Goodwin and Gulick, *Greek Grammar*. (4-0; 4-0)

GREE 320. (3) **Homer**

An examination of the Greek epic tradition, and a careful reading of books of the *Iliad* and *Odyssey* to be specified at the beginning of the session. At least five books of Homer will be read. (3-0; 3-0)

GREE 330. (3) **Greek Drama**

The historical development of the Greek theatre; study of selected plays of Aeschylus, Sophocles, Euripides, and Aristophanes.

(Not offered 1970-71). (3-0; 3-0)

GREE 340. (3) **Greek Philosophy**

A study of selected texts in Greek philosophy, with major emphasis on Plato's *Republic* and Aristotle's *Nicomachean Ethics*.

(Not offered 1970-71). (3-0; 3-0)

GREE 350. (3) **Greek Historians**

The development of Greek historical enquiry, with emphasis on Herodotus and Thucydides.

(Not offered 1970-71). (3-0; 3-0)

GREE 480. (1-6) **Greek Composition**

GREE 490. (1-6) **Directed Reading in Greek**

## LATIN

Students who have received credit for high school Latin will be placed by the Department according to their ability. Normally, students with 4 years of high school Latin will register for Latin 240; those with 3 or 2 years, for Latin 140; and those with 1 year or no previous study, for Latin 100. Latin 200 or Latin 240 is a prerequisite for all Latin courses at the 300 level. Second Year students who have already completed Latin 240 or its equivalent may register for any Latin course at the 300-level.

LATI 100. (3) **Beginners' Latin**

For students with no previous knowledge of Latin. An introduction to the Latin language with easy readings from Roman authors.

Texts: F. M. Wheelock, *Latin*; Cobban and Colebourn, *Civis Romanus*. Recommended: Allen & Greenough, *New Latin Grammar*; Cassell's *New Latin Dictionary*.

Members of the Department. (4-0; 4-0)

LATI 140. (3) **Intermediate Latin**

Prerequisite: Latin 10 or 11. An accelerated review of Latin grammar, with selected readings from prose and verse authors. Some emphasis will be placed on the student's ability to read Latin aloud.

Texts: F. M. Wheelock, *Latin*; Cobban and Colebourn, *Civis Romanus*. Recommended: Allen & Greenough, *New Latin Grammar*; Cassell's *New Latin Dictionary*.

(4-0; 4-0)

All work at the 200 level or beyond will require a Cassell's *New Latin Dictionary* and Allen & Greenough, *New Latin Grammar*.

LATI 200. (3) **Latin Language and Literature**

Prerequisite: Latin 100 or equivalent; not open to students who have completed Latin 140. The emphasis will be on an increased understanding of the language through a reading of the authors.

Texts: Cicero, *Pro Archia*; Tibullus, *Select Elegies*, ed. W. M. Wilson; and selected readings from other authors; Cassell's *New Latin Dictionary*; Allen & Greenough, *New Latin Grammar*; F. M. Wheelock, *Latin*.

(4-0; 4-0)

LATI 240. (3) **Introduction to Latin Literature**

Prerequisite: Latin 12 or Latin 140. An introduction to major Latin poets and prose-writers and a consideration of their style and significance. Some emphasis will be placed on sight translation, Latin composition, metre and reading aloud.

Texts: Cicero, *First Catilinarian Oration*; Pliny, *Selected Letters*, ed. Kinchin Smith; Catullus, *Selections*, ed. Melliuish and Kinchin Smith; Virgil, The Aristaeus Episode of *Georgics* IV (lines 281 to the end) together with *Eclogues* I, IV and VIII; *Cassell's New Latin Dictionary*; Allen & Greenough, *New Latin Grammar*.  
(4-0; 4-0)

LATI 310. (3) **Horace**

A study of the poetic achievement of Horace in lyric poetry, invective, satire, and literary criticism.

Texts: The prescribed edition will be the Oxford Classical Text of Horace. Recommended reading will include Eduard Fraenkel's *Horace*, L. P. Wilkinson's *Horace and his Lyric Poetry*, and Niall Rudd's *The Satires of Horace*. Commentaries on Horace, supplementary studies and scholarly articles will be recommended at the beginning of the course.

(Not offered 1970-71). (3-0; 3-0)

LATI 320. (3) **Vergil**

A study of the *Eclogues*, *Georgics*, and *Aeneid*; an evaluation of Vergil's place in the classical tradition.

Text: R. A. B. Mynors, *Vergil*, Oxford Classical Text. (3-0; 3-0)

LATI 330. (3) **Lucretius**

Readings and studies in the poetry of Lucretius and the philosophy of Epicurus.  
(3-0; 3-0)

LATI 340. (3) **Roman Elegy**

A critical reading of the major Latin elegiac poets, including Catullus, Tibullus, Propertius, and Ovid.  
(3-0; 3-0)

LATI 350. (3) **Roman Historians**

A study of Latin historiography; readings from Cicero, Sallust, Livy, Tacitus, and Ammianus Marcellinus.

(Not offered 1970-71). (3-0; 3-0)

LATI 360. (3) **Roman Drama**

A study of the development of classical Roman drama from its Greek and native origins; major emphasis upon the comedies of Plautus and Terence; the tragedies of Seneca; the physical theatre of the Roman world.

(Not offered 1970-71). (3-0; 3-0)

LATI 370. (3) **Roman Satire**

A survey of Roman satire from its origins, with an emphasis on Horace and Juvenal; study of Seneca's *Apocolocyntosis* and Petronius' *Satyricon*.

(Not offered 1970-71). (3-0; 3-0)

LATI 390. (3) **History of the Latin Language**

The development of the Latin language, both literary and colloquial, from the period of earliest evidence until the emergence of the Romance languages. Study of morphology, phonology, vocabulary, syntax; Vulgar and Christian Latin.

(3-0; 3-0)

LATI 460. (3) **Seminar in Latin Poetry**

Prerequisite: one of Latin 310, 320, 330, 340 or equivalent. Intensive study of selected problems in the field of Augustan literature.

(Not offered 1970-71). (3-0; 3-0)

LATI 480. (1-6) **Latin Composition**

(Not offered 1970-71).

LATI 490. (1-6) **Directed Reading in Latin**

## CLASSICAL STUDIES

A knowledge of the Greek and Latin languages is not required for the following courses.

Classical Studies 100 is designed primarily as an elective for students in all fields, but is recommended also for prospective majors in Classics. It is not a prerequisite for subsequent courses in Classical Studies. Second year students who have completed Classical Studies 100 and wish further work in classics are strongly advised to study Greek and/or Latin. Any student in Second Year may register for one course in Classical Studies at the 300 level. Classical Studies 100 may not be taken by students who have already received credit for any course in Classical Studies at the 300 level.

Three units of credit in the Department of History will be given for Classical Studies 330 or 340. Philosophy 300 is acceptable for credit in all programmes in the Department of Classics in lieu of any 300-level course in Classical Studies.

### 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 Aegean Bronze Age, fifth century Athens, and Augustan Rome.

Readings will include Homer's *Iliad* and *Odyssey*, selections from Herodotus and Thucydides, Sophocles' *Oedipus* and other representative Greek dramas, *Symposium*, *Apology*, *Crito* of Plato, a few books of Livy, and Vergil's *Aeneid*.

Essays will be required, and there will be an examination.

Members of the Department.

(3-0; 3-0)

### CLAS 310. (3) **Classical Epic and Lyric Poetry**

A study of the Greco-Roman poetic tradition, with an emphasis on the non-dramatic genres of epic and lyric. Poets studied in translation will include Homer, Hesiod, Pindar, Catullus, Horace, and Vergil.

(2-0; 2-0)

### CLAS 315. (3) **Greek and Roman Drama**

The origins and development of drama in ancient Greece and Rome. The study, in English translation, of representative plays of Aeschylus, Sophocles, Euripides, Aristophanes, Menander, Plautus, Terence, and Seneca. Problems of ancient theatre production will receive consideration.

(Not offered 1970-71).

(2-0; 2-0)

### 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 fifth and fourth centuries B.C.; the Hellenistic world.

Outside reading includes selected works listed on the bibliographical sheets distributed at the beginning of lectures. One essay is required in the first term and one in the second term.

Texts: N. G. L. Hammond, *A History of Greece to 322 B.C.*; Plutarch, ed. Edmund Fuller, *Lives of the Noble Greeks*; Herodotus, trans. Aubrey de Selincourt, *The Histories*; Thucydides, trans. Sir Richard Livingstone, *The History of the Peloponnesian War*.

(Offered 1971-72).

(3-0; 3-0)

### CLAS 340. (3) **Roman History**

The growth of Rome and the development of her political institutions during the Republic; the social and economic history of the Empire; the transition from the classical to the medieval world.

Outside reading includes selected works listed on the bibliographical sheets distributed at the beginning of lectures. One essay is required in the first term and one in the second term.

Texts: M. Rostovtzeff, *Rome*; Plutarch, ed. Edmund Fuller, *Lives of the Noble Romans*; W. G. Sinnigen, *Rome*.

(3-0; 3-0)

CLAS 350. (3) **Classical Archaeology**

A study of the archaeological remains from the Aegean Bronze Age, fifth-century Athens, and early Italy. Slide lectures, final slide examination. One or two essays totalling 25-30 pages.

(Not offered 1970-71).

(3-0; 3-0)

CLAS 460. (3) **Seminar in Ancient History**

Intensive study of selected topics in Greco-Roman civilization. Prerequisite or co-requisite: Classical Studies 330 or 340.

Each student will deliver approximately four papers orally in class, and his contribution to discussion in class will also be evaluated. Attention will be paid to improvement of historical method.

(2-0; 2-0)

**CLASSICS (Honours)**

CLAS 463. (3) **Third Year Seminar**

(2-0; 2-0)

CLAS 464. (3) **Fourth Year Seminar**

(2-0; 2-0)

CLAS 499. (1-3) **Graduating Essay**

(0-0; 0-0)

# DEPARTMENT OF ECONOMICS

Gordon W. Bertram, B.A. (*Brit. Col.*), Ph.D. (*Calif.*), Professor and Chairman of the Department.

Leo I. Bakony, B.A. (*Brit. Col.*), Ph.D. (*Wash.*), Professor.

W. R. Derrick Sewell, B.Sc.Econ. (*London*), M.A., Ph.D. (*Wash.*), Professor.

G. Reid Elliott, B.A. (*Sask.*), Ph.D. (*Tor.*), Professor Emeritus.

J. Colin H. Jones, B.A. (*Univ. Coll. of Wales*), M.A. (*Montana State*), Ph.D. (*Queen's*), Associate Professor.

Leonard Laudadio, B.A. (*Puget Sound*), M.A., Ph.D. (*Wash.*), Associate Professor.

Izzud-Din Pal, B.A., M.A. (*Panjab*), M.Sc.Econ. (*London*), Ph.D. (*McGill*), Associate Professor.

Gerald L. Lassen, B.A. (*Texas*), M.A. (*Wis.*), Assistant Professor.

William D. Walsh, B.Com. (*Brit. Col.*), M.A., Ph.D. (*Yale*), Assistant Professor.

Gerald R. Walter, B.A., M.A., Ph.D. (*Calif.*), Assistant Professor.

R. A. L. Carter, B.A. (*R.M.C.*), M.A. (*Queen's*), Lecturer.

Robert V. Cherneff, B.A. (*U. of Vic.*), M.A. (*Wash.*), Lecturer.

J. Trevor Matthews, B.A. (*Brit. Col.*), M.B.A. (*Stanford*), Lecturer.

Robert W. McQueen, B.Com. (*Brit. Col.*), C.A., Part-time Lecturer.

## INTRODUCTORY AND INDIVIDUAL COURSES

Students who wish to take only one or two courses in Economics may be interested in the following two courses. Economics 100 deals with the basic concepts of Economics and is the introductory course in Economics as well as the prerequisite for Economics 200. Economics 200 is a continuation of Economics 100 and provides a further introduction to the principles of economics at a more advanced level. Economics 201 is for students who have no credit in Economics 100 and may wish to enter a programme in economics leading to upper division courses, but did not enter the normal sequence of taking Economics 100 in the first year and Economics 200 in the second year. Upper division courses may also be taken subject to the regulations governing the prerequisite courses.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

(Consult Department for graduate course offerings planned for 1970-71 leading to the M.A. degree in economics.)

### Requirements:

(i) For General Programme with 9 units in Economics:

- |  |   |   |
|--|---|---|
| (a) Economics 100  | } | or, Economics 201 for all those students who have no credit in Economics 100. |
| (b) Economics 200  |   |   |
| (c) Economics 302 and 6 additional units in Economics courses numbered 300 or above. |   |   |

(ii) For Major:

- |  |   |  |
|--|---|--|
| (a) Economics 100  | } | or, Economics 201 for all those students who have no credit in Economics 100. Second class standing will be required in Economics 201. |
| (b) Economics 200 with at least a second class standing  |   |  |
| (c) Economics 302, or 300 and 301, 321, 340, and 3 additional units in Economics over the 300 level to a total of 15.  |   |  |
| (d) Mathematics 100 and 101 (or 130) or 151 and 102 (formerly 140) or 180 (formerly 150) unless permitted by the Department to omit this requirement in special circumstances. |   |  |

(iii) For Honours:

- (a) Mathematics 100 and 101 (or 130) or 151 and 102 (formerly 140) or 180 (formerly 150) unless permitted by the Department to omit this requirement in special circumstances;
- (b) Economics 100
- (c) Economics 200  
with at least a high  
second class standing
- (d) Economics 300, 301, 321, 340, 470 and 21 additional units of which at least 12 units must be in Economics courses numbered above 300 and at least 6 units must be in another subject or subjects with the approval of the Department.

or, Economics 201 for all those students who have no credit in Economics 100. High second class standing will be required in Economics 201.

Recommended: Commerce 151, 3 units of Mathematics in addition to Mathematics 151 and 102 or 180 (formerly 140 or 150), Political Science 200 or 318 (formerly 410).

- (e) Admission to Honours programme, which should be sought at the end of the Second Year, requires permission of the Department. Interested students should consult the Department as early as possible in the first two years. Students will be admitted to Honours programme only if they have obtained at least a second class standing in the Second Year. They will be required to maintain at least a second class average in Economics courses taken in the Third and Fourth Years. Economics 470 is required for all Fourth Year Honours students. Third Year Honours students will be required to attend the Seminars. There will be a comprehensive examination in Economics 470 at the end of the Fourth Year in which at least a second class standing will be required for Honours.

## COURSES OFFERED

Economics 100 is a prerequisite for Economics 200. Economics 200 or 201 is a prerequisite for all Third Year courses but, in special cases, Economics 200 or 201 may be taken concurrently with Economics 340 and 341 with the permission of the Department. Economics 302, or 300 and 301, is a prerequisite for all courses numbered 400 and above. Permission to take Economics 300 or 302 concurrently with a course numbered 400 and above may be granted under exceptional circumstances.

### ECON 100. (3) **Introduction to Economics**

Basic principles of economics with reference to the main features of the Canadian economy. Attention will be given to the evolution of institutions and processes involved in the production and distribution of wealth; special emphasis will be placed on basic determinants of prices and costs and determinants of income and employment, international trade and economic growth.

Text: To be announced.

Members of the Department. Sections to be announced. (3-0; 3-0)

NOTE: Students with Economics 200 standing will not be permitted in this course, nor will they be permitted to register in the two courses concurrently.

### ECON 200. (3) **Principles of Economics**

A continuation of the principles of economic analysis with special reference to the theory of demand, the theory of the firm, fluctuations in income and prices, monetary and fiscal policies for economic stabilization; related topics.

Text: To be announced.

Staff. Sections to be announced. (3-0; 3-0)

### ECON 201. (3) **Introduction to Economics and Principles of Economics**

Accelerated course covering the readings and materials completed in Economics 100 and Economics 200. It is designed for students who wish to enter economics and have no credit in Economics 100. A concentrated effort is required of students enrolling in this course.

Prerequisite: First Year standing completed.

Text: To be announced.

Mr. Matthews.

For students with no credit in Economics 100.

(3-1 ½; 3-1 ½)

**ECON 300. (3) Microeconomics**

Theories of demand and production; pricing of factors of production; general equilibrium theory; welfare economics; some applications of price theory.

Text: To be announced.

Dr. Laudadio.

(3-0; 3-0)

**ECON 301. (3) Macroeconomic Theory (formerly Economics 400)**

Theories of income and employment with special reference to the classical and the Keynesian models; the dynamics of the aggregate supply and demand; theory of inflation; economic growth.

Text: To be announced.

Dr. Bakony.

(3-0; 3-0)

**ECON 302. (3) Intermediate Economic Theory**

The analysis of consumer behaviour; the study of allocation of resources under competitive and non-competitive market conditions; the measurement and determination of national income, employment, and prices.

Text: To be announced.

Dr. Pal, Dr. Walter.

(3-0; 3-0)

**ECON 305. (1 ½) 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. First term only.

Text: To be announced. Supplemental Reading.

Mr. Cherneff.

(3-0; 0-0)

**ECON 310. (3) Industrial Organization and Public Policy**

Problems of competition and monopoly; relevant public policy, with special reference to Canada.

Text: To be announced. Supplementary reading and term paper.

Dr. Jones.

(3-0; 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.

Text: To be announced. Supplementary reading.

Dr. Walsh.

(3-0; 3-0)

**ECON 321. (3) The Economic History of Canada**

The study 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.

Text: To be announced. Term paper. Supplemental Reading.

Dr. Bertram.

(3-0; 3-0)

**ECON 323. (3) Comparative Economic Systems**

A study of the theories and doctrines underlying the economic system of capitalistic and socialistic countries, including a detailed analysis of Marxian economics.

An examination of how the theoretical under-pinnings affect economic institutions and policies of representative countries (e.g. Canada, U.S.A., U.S.S.R., China).

Text: To be announced. Supplementary reading.

(3-0; 3-0)

**ECON 325. (1 1/2) Public Finance**

A discussion of taxation and expenditure policies with an emphasis on Canada. Micro-economic effects of these policies will be examined in detail. First term only.

Text: To be announced.

Mr. Lassen.

(3-0; 0-0)

**ECON 326. (1 1/2) Fiscal Policy and Related Issues**

A discussion of fiscal and debt-management policy. This course would examine the historical record of Canadian policy since the depression and theoretical possibilities for the present and future. Second term only.

Text: To be announced. Term paper.

Mr. Lassen.

(0-0; 3-0)

**ECON 340. (1 1/2) Descriptive Statistics**

Methods of Sampling, Frequency Distributions, Frequency Charts, Measures of Central Tendency, Measures of Dispersion, Measures of Shape, Index Numbers, Trend Analysis, Regression and Correlation as a Descriptive Technique, Seasonality. First term only.

Text: To be announced. Problems assigned weekly.

Mr. Carter.

(3-0; 0-0)

NOTES: 1. Prerequisite: Mathematics 151 and 102 (formerly 140), or Mathematics 180 (formerly 150) or permission of the Department.

2. This course may be taken concurrently with Economics 200 or Economics 201 only with the permission of the Department.

**ECON 341. (1 1/2) Statistical Inference**

Probability Theory, Sampling Theory, Confidence Limits, Tests of Hypotheses, Regression and Correlation. Research project. Second term only.

Prerequisite: Economics 340, and Mathematics 130 or Math. 151\* and 102\* or permission of the Department. (\*Formerly Mathematics 140.)

Text: To be announced.

Mr. Carter.

(0-0; 3-0)

**ECON 350. (1 1/2) Soviet Economics**

An examination of the theory of economic planning, the Soviet method of determining economic ends, and the development and practice of consequent economic institutions. Some time will be given to the unique problems of the Soviet economy and its current directions of change. Second term only.

Text: To be announced. Supplementary reading.

(0-0; 3-0)

**ECON 401. (3) History of Economic Thought**

An analysis of classical and neo-classical thought to the present; contributions of eclectics; socialists and institutionalists.

Text: To be announced.

(Not offered in 1970-71.)

(3-0; 3-0)

**ECON 405. (3) International Economics**

Theory of international trade; comparative costs and general equilibrium theory; balance of payments; international stability; trade policy; international aspects of economic development of under-developed countries.

Text: To be announced. Supplementary reading. Term paper.

Dr. Pal.

(3-0; 3-0)

**ECON 406. (1½) Monetary Theory and Policy**

The examination of the comparative efficacy of the instruments of monetary control; the objectives and effectiveness of monetary policy; the theory of the demand for money; money supply theory; and international monetary problems. Second term only.

Prerequisite: Economics 302 or Economics 300 and 301 or permission of the Department. Economics 305 is recommended.

Text: To be announced. Supplementary reading.

Mr. Cherneff.

(0-0; 3-0)

**ECON 410. (3) Principles and Problems of Economic Policy**

Consideration of agricultural policy, monetary policy, fiscal policy, commercial policy, anti-monopoly policy, labour policy, social security and economic planning. An essay will be assigned during the session on a topic dealing with an aspect of government economic policy in Canada.

Text: To be announced.

Dr. Jones.

(3-0; 3-0)

**ECON 412. (1½) Urban Economics**

Application of economic theory to the form and structure of urban areas. External effects and public policy in the urban context. Topics include: intraurban location, systems of cities, economic function and the specialization within the city, the economics of urban transport, housing and public services. First term only.

Text: To be announced. Term paper.

Dr. Walter.

(3-0; 0-0)

**ECON 414. (1½) Regional Economics**

Consideration of economic factors controlling regional income and population growth. The problem of regional economic disparities. Models for evaluating and forecasting subnational economic growth. Topics include: regional accounting, migration, comparative advantage, application of input-output, economic base, industry complex models, and associated public policies. Second term only.

Text: To be announced. Term paper.

Dr. Walter.

(0-0; 3-0)

**ECON 420. (3) Theory of Economic Development**

Theories of economic growth; role of the non-economic factors in economic development; planning and financing economic development; some lessons of experience in growth and change.

Text: To be announced. Term paper.

Dr. Pal.

(3-0; 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 given to the transference of industrialization techniques to non-European countries. Second term only.

Text: To be announced.

Dr. Bertram.

(0-0; 3-0)

**ECON 422. (1½) American Economic History**

The economic history of the United States from colonial times to the present. Special emphasis on the techniques of the new economic history applied to the American experience. First term only.

Text: To be announced. Supplementary reading.

Dr. Bertram.

(3-0; 0-0)

**ECON 430. (3) Economics of Natural Resources**

The application of economic theory to the use and exploitation of natural resources. A discussion of economic theory in relation to problems of allocation, distribution, stability, and economic growth as they relate to resource management is undertaken, followed by an investigation of particular problems in various resource

industries. Special emphasis will be placed on resource development problems in Canada and in British Columbia.

Text: To be announced. Term papers First and Second terms.

Dr. Sewell. (3-0; 3-0)

ECON 440. (3) **Mathematical Economics**

The use of mathematics to derive economic theory. Topics include optimization theory for the consumer and the firm using calculus and linear programming, input-output analysis and dynamics. Very little outside reading is required. Problems are assigned every week.

Prerequisite: Mathematics 240, or permission of the Department.

Text: A. C. Chiang, *Fundamental Methods of Mathematical Economics*.

Mr. Carter. (3-0; 3-0)

ECON 445. (3) **Econometrics**

The application of statistical methods in economics illustrated by representative empirical studies. Problem assignments will be devoted to data preparation and the use of the computer.

Prerequisites: Economics 340 and 341 and either Mathematics 240 or 100, 101 and 110.

Text: To be announced.

Dr. Bakony. (3-1; 2-2)

ECON 470. (3) **Honours Seminar**

NOTE: For Honours students only.

ECON 495. (3) **Directed Studies**

An elective course for selected Honours students which may, with the permission of the Department, be substituted for another elective course numbered above 400.

### COMMERCE

Commerce 151 is open only to those students who are permitted to register in the Second Year.

COMM 151. (3) **Fundamentals of Accounting** (Consult Department on possible change in this Course).

The analysis and communication of financial events and an examination of the accounting postulates underlying the preparation and presentation of financial statements.

Text: To be announced.

Mr. McQueen. (3-0; 3-0)

## DEPARTMENT OF ENGLISH

- Roy F. Leslie, M.A., Ph.D. (*Manchester*), Professor and Head of the Department.  
Roger J. Bishop, B.A. (*Brit. Col.*), B.L.S., M.A. (*Tor.*), Professor.  
John D. Peter, M.A. (*Cantab.*), B.A., LL.B., D.Litt. (*South Africa*), Professor.  
Miss Ann Saddlemeyer, B.A. (*Sask.*), M.A. (*Queen's*), Ph.D. (*London*), Professor.  
Robin Skelton, M.A. (*Leeds*), F.R.S.L., Professor, (Director of Creative Writing Division).  
Charles Doyle, M.A. (*N.Z.*), Ph.D. (*Auckland*), Associate Professor (Director of American & Commonwealth Literature Division).  
John G. Hayman, B.A. (*Oxon.*), M.A. (*Cornell*) Ph.D. (*Northwestern*), Associate Professor.  
Burton O. Kurth, B.A. (*Brit. Col.*), Ph.D. (*Calif.*), Associate Professor, (Director of Honours Division).  
Chester L. Lambertson, M.A. (*Alta.*), Ph.D. (*Harvard*), Associate Professor.  
Robert G. Lawrence, M.A. (*New Brunswick*), Ph.D. (*Wisconsin*), Associate Professor.  
Frederick Mayne, B.A., Ph.D. (*Witwatersrand*), Associate Professor.  
G. Grant McOrmond, C.D., M.A. (*Sask.*), Associate Professor.  
Lionel Adey, M.A. (*Birmingham*), Ph.D. (*Leicester*), Assistant Professor.  
Norman W. Alford, B.A. (*London*), Ph.D. (*Texas*), Assistant Professor.  
William Benzie, M.A., M.Ed., Ph.D. (*Aberdeen*), Assistant Professor .  
Michael R. Best, B.A., Ph.D. (*Adelaide*), Assistant Professor.  
Miss Joan Coldwell, M.A. (*London*), Ph.D. (*Harvard*), Assistant Professor.  
Miss Margaret A. Doody, B.A. (*Dalhousie*), B.A., D.Phil. (*Oxon.*), Assistant Professor. (Leave of absence 1970-71).  
Anthony B. England, M.A. (*Manchester*), Ph.D. (*Yale*), Assistant Professor.  
Leonore H. Ewert, B.A. (*Upland Coll.*), M.A., Ph.D. (*Claremont*), Assistant Professor.  
Melvyn D. Faber, B.A. (*Chicago*), M.A., Ph.D. (*Calif.*), Assistant Professor.  
William J. Goede, B.A. (*Wis.*), Ph.D. (*Calif.*), Assistant Professor.  
Bryan N. S. Gooch, M.A. (*Brit. Col.*), Ph.D. (*London*), A.R.C.T. (*Tor.*), F.T.C.L. (*London*), Assistant Professor.  
Mrs. Velma L. Gooch, B.Ed., M.A. (*Alta.*), Senior Lecturer.  
J. Patrick Grant, B.A. (*Queen's, Belfast*), D.Phil. (*Sussex*), Assistant Professor.  
Anthony W. Jenkins, M.A. (*Cantab.*), Ph.D. (*Calif.*), Assistant Professor. (Leave of absence 1970-71).  
Miss Carol V. Jolinson, B.A. (*Coll. of St. Catherine*), M.A. (*Marquette*), M.F.A. (*Iowa*), Ph.D. (*Bristol*), Assistant Professor.  
Mrs. Patricia Köster, B.A. (*Brit. Col.*), M.A. (*Calif.*), Ph.D. (*London*), Assistant Professor.  
Samuel L. Macey, B.A. (*Brit. Col.*), Ph.D. (*Wash.*), F.I.W.S.P., Assistant Professor.  
Victor A. Neufeldt, B.A. (*Brit. Col.*), Ph.D. (*Illinois*), Assistant Professor.  
Colin J. Partridge, B.A., Ph.D. (*Nottingham*), Assistant Professor.  
Miss Florence K. Riddle, B.A. (*Reed Coll.*), M.A. (*Yale*), Ph.D. (*Wash.*), Assistant Professor.  
Terry G. Sherwood, B.A. (*Oregon*), M.A., Ph.D. (*Calif.*), Assistant Professor.  
Nelson C. Smith, A.B. (*Princeton*), M.A.T. (*Oberlin*), Ph.D. (*Wash.*), Assistant Professor.  
Henry Summerfield, M.A. (*Oxon.*), M.Litt. (*Durham*), Assistant Professor.  
David S. Thatcher, B.A. (*Cantab.*), M.A. (*McMaster*), Ph.D. (*Alta.*), Assistant Professor.  
Bruce E. Wallis, B.A. (*Rutgers*), M.A. (*Harvard*), Ph.D. (*Princeton*), Assistant Professor.  
Edward R. Zietlow, B.A. (*Dakota Wesleyan*), M.A. (*Boston*), Ph.D. (*Wash.*), Assistant Professor.

Miss Ann M. Alexander, B.A. (*Radcliffe*), M.A. (*Calif.*), Lecturer.  
 Dennis E. Brown, M.A. (*London*), Lecturer. (Leave of absence 1970-71).  
 Thomas R. Cleary, B.A. (*Queen's Coll.*), M.A. (*Princeton*), Lecturer.  
 Mrs. Margaret N. Cutt, M.A. (*Alta.*), Lecturer.  
 Alan F. Dilnot, B.A., B.Phil. (*Oxon.*), Lecturer. (Leave of absence 1970-71).  
 Anthony S. G. Edwards, B.A. (*Reading*), M.A. (*McMaster*), Lecturer.  
 Mrs. Sheila M. Hogg, B.A. (*U. of Vic.*), M.A. (*Wash.*), Lecturer.  
 Alexander N. Hutchison, M.A. (*Aberdeen*), Lecturer.  
 Mrs. Marjorie R. Menhenett, B.A. (*Wellesley*), M.A. (*Calif.*), Lecturer.  
 Mrs. Eugenie L. Myles, M.A. (*Alta.*), Lecturer.  
 Illyd L. T. Perkins, B.A. (*Sussex*), Lecturer.  
 Mrs. Hanne Quillévére, B.A., M.A. (*Brit. Col.*), Lecturer.  
 Mrs. Constance M. Rooke, B.A. (*Smith Coll.*), M.A. (*Tulane*), Lecturer.  
 Miss Norma Rowen, M.A. (*Oxon.*), Lecturer.  
 Lawrence Russell, B.A. (*U. of Vic.*), M.A. (*Calif.*), Lecturer.  
 Mrs. Ingrid Sheeter, B.A. (*Oxon.*), Lecturer.  
 Miss Stella Slade, B.A. (*London*), Dip. Ed. (*Oxon.*), M.A. (*Dalhousie*), Lecturer.  
 Reginald C. Terry, M.A. (*Bristol*), Lecturer.  
 Gordon A. J. Watt, M.A. (*Aberdeen*), Lecturer. (Leave of absence 1970-71).  
 Trevor L. Williams, M.A. (*Manchester*), Lecturer.  
 Miss Carol Wootton, B.A. (*U. of Vic.*), M.A. (*Brit. Col.*), A.R.C.T. (*Tor.*),  
 L.R.S.M. (*London*), Lecturer.  
 Robert S. Sward, B.A. (*Illinois*), M.A. (*Iowa St.*), Visiting Lecturer.

### PREREQUISITES

All students in the First Year who do not pass the qualifying examination in the use of English are required to take English 110. English 120 (or its equivalent elsewhere) is prerequisite to all other English courses, except that, in special circumstances and with the permission of the Department, students who have distinguished themselves in English 110 may be allowed to proceed to Second Year English courses. Students who pass the qualifying examination, or who are exempted from it, may nevertheless take English 110 as an elective, if they are not taking English 120.

English 200, 201, or 203 is prerequisite for all English courses numbered 390 or above, except where otherwise indicated. English 201 or 203 may be substituted for English 200 by all students who do not wish to major or honour in English, or who do not wish to choose English as one of their fields of concentration in the General programme. They may also be taken for additional credit by students who must enrol in English 200.

Students who demonstrate that they have mastered the material normally covered in any course listed below may be permitted to enrol in courses for which that course is a prerequisite. In particular, students who elect English 201 or 203 instead of 200, and who subsequently desire to major or honour in English, or take English as one of their fields of concentration in the General programme, may take a comprehensive examination to prove their competence in the field covered by English 200. This examination will normally be given at the beginning of the academic year; those who pass will be considered to have satisfied the prerequisite for which English 200 is normally required, but no units of credit for 200 will be assigned.

All students who are likely to take more than two senior English courses, i.e. courses numbered 390 and above, are advised to take English 200.

All students wishing to honour or major in English, or to take English as a field of concentration in the General programme, must demonstrate an adequate reading knowledge of a language other than English, acceptable to the Department. This requirement may be satisfied by courses to the 200 level.

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).

## HONOURS

The Honours Programme allows students of proven ability to study English Language and Literature more comprehensively than is possible in the General or Major programmes. Courses range more widely over the whole field of English studies, and the approach within the special Honours courses is more intensive. Since such classes are normally small enough to meet as tutorial or seminar groups, they make greater demands on a student's initiative and judgment than work in a General or Major course. Individual tutors are assigned to offer guidance on each student's requirements. Students who take a special interest in English Language or Literature, or who are contemplating post-graduate study in English, are strongly advised to enrol in the Honours rather than in the General or Major programme.

Prerequisites for admission to Third Year Honours include a First or high Second Class mark in English 200, and the approval of the Head of the Department. In the last three years candidates will offer at least 45 units of credit. Students are advised to take English 245 in their Second Year. In the Third and Fourth Years students are also required to take 15 units consisting of the following courses: English 440; 441 or 443 or 444; 446; four of the Honours Tutorials 451-56,<sup>1</sup> and 499 (Graduating Essay or Directed Reading).

From 15 units of electives, 9 units must be taken from English courses numbered 390 and above, and 6 additional units may be taken either from these courses or in approved fields outside the Department. Recommended electives are English 413 and Liberal Arts 305<sup>2</sup> (for English Honours and Major students, English 200 is prerequisite to Liberal Arts 305). Candidates should possess a reading knowledge of at least one foreign language acceptable to the Department. At the end of the Fourth Year there will be an interview, at which students may be required to defend their Graduating Essay or discuss the work of their Directed Reading project.

## MAJOR

Students wishing to major in English should take in their First Year: English 120;<sup>3</sup> Second Year: English 200 (or successfully challenge this course); Third and Fourth Years: a total of 15 units in English courses numbered 390 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 advisors.

## GENERAL

Students wishing to take English as one of the fields of concentration in their General programme should take in their First Year: English 120;<sup>3</sup> Second Year: English 200 (or successfully challenge this course); Third and Fourth Years: a total of 9 units in English courses numbered 390 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 advisors.

## CREATIVE WRITING

The Creative Writing Programme offers students a three-year course of study with specialization in poetry, fiction or drama during the last two years. The introductory course, English 202, is recommended for all students interested in writing. However, students of proven ability may be permitted to enter advanced courses with the approval of the individual instructor.

The Creative Writing Programme has two main functions. The first is to assist students who wish to become professional writers. The second is to help students

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<sup>1</sup> One-term group tutorials, offering individual guidance in period readings, together with discussions of major themes and ideas. Term essays or reports are not required. Open to Honours students and those majoring in English, who obtain the permission of the Department. Tutorials will be limited to 15 students each. Honours students must take at least two tutorials in the Third Year and two in the Fourth Year.

<sup>2</sup> See page 136.

<sup>3</sup> In approved cases, students who are required to take English 110 may be permitted to take English 200 in the following year.

with more general interests to broaden their appreciation of literature and develop their capacity for self-expression. The program is intended for all university students, with no special emphasis upon English majors.

## AMERICAN LITERATURE

Students considering concentrating in this field should refer to the prescriptions for courses 203, 426, 427, 428, 429 and 435.

## COURSES OFFERED

### ENGLISH

#### FIRST YEAR

Students who pass the qualifying examination may elect to take either English 110 or English 120, but those who plan to specialize in English should take English 120.

#### ENGL 110. (3) *The Use of English*

The major emphasis will be placed on problems in writing through a study of prose literature: the Essay, Short Story and Novel; themes and exercises are required.

Texts: Casty & Tighe, *Staircase to Writing and Reading* or Dawe, *Profile of a Nation*; Arthur Mizener, *Modern Short Stories: The Uses of the Imagination* (Revised edition); supplementary prose texts may be chosen by the individual instructor.

Approved editions of the above texts will be available in the University Bookstore.

Members of the Department. (3-0; 3-0)

#### ENGL 120. (3) *Literature of English-Speaking Countries*

A study of the major genres of English Literature, with special emphasis upon the Short Story, the Novel, the Drama, and Lyrical and Narrative Poetry from 1870 to the present day. Attention will be paid to essay writing and a demonstration of critical awareness.

Texts: Individual instructors will choose five or six novels and five or seven plays from the following list:

##### (a) *Novels*

Achebe, *Things Fall Apart*; Cary, *To be a Pilgrim*; Conrad, *Under Western Eyes*; Dickens, *Great Expectations*; Faulkner, *Light in August*; Fowles, *The Collector*; Green, *The Power and the Glory*; Heller, *Catch 22*; James, *The Turn of the Screw*; Lawrence, *Sons and Lovers*; McCullers, *The Member of the Wedding*; Richler, *The Apprenticeship of Duddy Kravitz*;

##### (b) *Plays*

Shakespeare, *Othello or Antony and Cleopatra*; Pinter, *A Slight Ache and Other Plays*; Albee, *The Zoo Story, Who's Afraid of Virginia Woolf?*; Arden, *Sergeant Musgrave's Dance*; Beckett, *Waiting for Godot*; Bolt, *A Man for All Seasons*; Ibsen, *Hedda Gabler*; Miller, *The Crucible*; Osborne, *Look Back in Anger*; Pinter, *The Caretaker*; Shaw, *Arms and the Man*; Stoppard, *Rosencrantz and Guildenstern Are Dead*;

##### (c) *Short Stories*

Mizener, *Modern Short Stories* or Taylor, *The Short Story*;

##### (d) *Poetry*

Mack, *Modern Poetry* or Geddes, *Twentieth Century Poetry and Poetics*;

##### (e) *Expository Prose*

Hoopes, *Edge of Awareness*;

##### (f) *Composition*

Birk and Birk, *Using English Effectively*.

Approved editions of the above texts will be available in the University Bookstore.  
Members of the Department. (3-0; 3-0)

## SECOND YEAR

### ENGL 200. (3) A survey of British Literature from the Elizabethan to the Romantic period.

Essays will be required.

Open to all students, but prerequisite for those who wish to major or honour in English, or who choose English as one of their fields of concentration in the General Programme.

Texts: *The Norton Anthology of English Literature* (2 vols.); other texts to be announced.

Members of the Department.

(3-0; 3-0)

### ENGL 201. (3) Studies in Literature giving insight into the ideas and attitudes of the modern world.

The forms of drama and narrative will be emphasised. Essays will be required.

Texts: One work by Shakespeare; Joyce, *Portrait of the Artist as a Young Man*; Forster, *Passage to India*; Fitzgerald, *The Great Gatsby*; Hardy, *The Mayor of Casterbridge*; Eliot, *Selected Poems*; Hemingway, *The Snows of Kilimanjaro, and Other Stories*; Crane, *The Red Badge of Courage*; Styron, *The Long March*; Camus, *The Plague*; Cary, *The Horse's Mouth*; Beckett, *Endgame*; Lawrence, *Short Stories* (edition to be announced); Brecht, *The Caucasian Chalk Circle*; Conrad, *Heart of Darkness*.

In addition to the above materials, another selection of poems and one background volume will be chosen by the instructor in each section of the course. Students are warned that individual instructors may substitute up to four of the set texts with works of their own choice.

Written work, namely essays and/or exams, will normally be required as a basis of evaluation, although other complementary or alternative approved methods may be used at the instructor's discretion in consultation with his students.

Members of the Department.

(3-0 3-0)

### ENGL 202. (3) Introduction to Creative Writing

A seminar offering practice in writing the short story, the one-act play and contemporary verse forms, with introductory discussions of technique in these areas. Permission of the Creative Writing Division is required.

Texts: Macaulay and Lanning, *Technique in Fiction*, and Ciardi, *How Does a Poem Mean?*

Mr. R. Sward, Dr. E. Zietlow, and members of the Creative Writing Division.

(3-0; 3-0)

### ENGL 203. (3) An Introduction to American Literature

A survey designed both for 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 for his section by each instructor and supplemented by additional readings in the major writers (such as Whitman, Hawthorne, Twain, Henry James, Faulkner). Background and critical readings may be required, or simply recommended, by individual instructors.

The supplementary reading list for each instructor may be obtained from the English Department office.

Text: *The American Tradition in Literature*, eds. Bradley, Beatty and Long, (Norton), 3rd ed., shorter.

Dr. W. Goede, Dr. C. Partridge, Dr. H. F. Smith, Dr. E. Zietlow.

(3-0; 3-0)

### ENGL 245. (3) Practical Criticism

A seminar giving practice in individual judgment of literary forms, with some introduction to the principles of criticism. 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 Department.

Dr. J. Coldwell, Dr. A. England, Dr. B. Kurth, Mr. R. Terry.

(3-0; 3-0)

### THIRD AND FOURTH YEARS

#### ENGL 300. (3) **English Composition**

This course is primarily a study of the principles and practice of good writing. Some attention is also given to poetry appreciation. *For credit in the Faculty of Education only.*

Texts: A good dictionary, such as *The Concise Oxford*, *Webster's Collegiate*, *Random House*; *Roget's Thesaurus*; *An English handbook* (e.g. Perrin, *An Index to English*); Millet, *Reading Poetry*, or Perrine, *Sound and Sense*; a selected book of essays.

Dr. C. Lambertson, Mrs. E. Myles, Mrs. H. Quillévére. (3-0; 3-0)

#### ENGL 301. (3) **Children's Literature**

A survey of children's literature, its sources and development, with emphasis upon the study of selected 19th and 20th century works. The course is designed to develop critical awareness of excellence in children's books and give an idea of the resources at present available in this field. One essay of approximately 2000 words, and one or two short reports or surveys (500-1000 words) will be required in each term. *For credit in the Faculty of Education only.*

Prerequisite: Permission of the Department.

Texts: Johnson et al., eds., *Anthology of Children's Literature*. Others to be announced.

A reading list is available for those intending to take the course in the 1970-71 year. Students must be prepared to read extensively.

Mrs. M. Cutt. (3-0; 3-0)

#### ENGL 390. (Linguistics 390) (3) **The Growth and Structure of Modern English**

A descriptive approach to the structure of Modern English, designed especially for those students who are interested in the application of modern linguistics science to an understanding of the language. So that Modern English may be seen in its proper perspective, some attention will be given to the history of the language, including the development of Canadian English.

The final grade is based on six substantial assignments. A fair amount of additional reading is provided in mimeograph form. Students are also provided with a list of reference books. Assignments usually require original and independent research.

Texts: Cook, *Introduction to the English Language*; Pyles, *The Origins and Development of the English Language*, Algeo & Pyles, *Problems in the Origins and Development of the English Language*.

Dr. Scargill and Dr. Kess. (3-0; 3-0)

#### ENGL 400. (3) **Advanced English Composition**

This course offers students practice in the writing and criticism of essays and prose composition in general. Competence in the English language is a prerequisite.

Texts: A good dictionary, such as *The Concise Oxford*, *Webster's Collegiate*, *Random House*; *Roget's Thesaurus*; an appropriate English handbook; a selected book of essays.

Dr. C. Lambertson, Mrs. E. Myles, Mrs. H. Quillévére. (3-0; 3-0)

#### ENGL 401. (3) **The Theory and Practice of Poetry**

A Creative Writing course which includes the study of the nature of the creative process, the nature of verbal communication, and prosody.

Prerequisite: Consent of the Creative Writing Division.

Mr. R. Sward. (3-0; 3-0)

#### ENGL 402. (3) **The Theory and Practice of Fiction**

A Creative Writing course which includes the study of prose structures and emphasizes individual student work in the novel and shorter prose forms.

Prerequisite: Consent of the Creative Writing Division.

Dr. E. Zietlow. (3-0; 3-0)

ENGL 403. (3) **The Theory and Practice of Drama**

A Creative Writing course which includes the study of the various dramatic forms and conventions, with emphasis upon individual student work, involving theatre-lab sessions.

Prerequisite: Consent of the Creative Writing Division.

Mr. L. Russell.

(3-0; 3-0)

ENGL 404. (3) **The Writing of Poetry**

An advanced Creative Writing course for students interested in poetry.

Prerequisites: English 401 and/or the consent of the Creative Writing Division.

Prof. R. Skelton.

(3-0; 3-0)

ENGL 405. (3) **The Writing of Fiction**

An advanced Creative Writing course for students interested in fiction.

Prerequisites: English 402 and/or the consent of the Creative Writing Division.

Dr. E. Zietlow.

(3-0; 3-0)

ENGL 406. (3) **The Writing of Drama**

An advanced Creative Writing course for students interested in drama.

Prerequisites: English 403 and/or the consent of the Creative Writing Division.

Mr. L. Russell.

(3-0; 3-0)

ENGL 407. (3) **Medieval Literature in Translation**

A survey of the major English literary texts of the Middle Ages, with particular reference to important background authors such as Boethius, Dante, Jean de Meun, Chrétien de Troyes, Petrarch and Boccaccio. The English texts will range from *Beowulf* to Dunbar and will probably include a representative selection of Medieval lyrics, morality plays, and romances, as well as major works by Chaucer, the Gawain poet, and Mallory.

Texts: *Beowulf* (Trans. B. Raffel); Ackerman, *Backgrounds to Mediaeval English Literature; The Battle of Maldon and Other Old English Poems*, eds. Crossley-Holland & Mitchell; *The Romance of the Rose*, eds. de Lorris & de Meun; *Mediaeval English Verse*, (Trans. B. Stone); *Sir Gawain and the Green Knight* (Trans. B. Stone); Sir Thomas Malory, *The Morte Darthur*, eds. Sanders & Ward.

Miss A. Alexander.

(3-0; 3-0)

ENGL 408. (3) **Renaissance Poetry and Prose**

The period studied extends from Skelton and More to Jonson, Bacon and Donne; other major writers studied include Wyatt, Sidney, Spenser, and Shakespeare as poet. A good deal of attention is paid to minor figures of interest (Roper, Ascham, Elyot, Greene, Dekker, Raleigh, etc.), and also to general movements within the period. The course load consists of wide reading and a combination of the research essay, seminar paper, and a final "open book" examination.

Texts: To be announced.

(Not offered this year, but intend to offer 1971-72).

(3-0; 3-0)

ENGL 410. (3) **The Renaissance Background of Ideas**

A study of the main currents of thought contributing to late Medieval and Renaissance literature.

Texts: To be announced.

Dr. P. Grant.

(3-0; 3-0)

ENGL 411. (3) **The Development of English Drama to 1642**

Main emphasis is upon the major Elizabethan and Jacobean dramatists.

Texts: *Everyman and Medieval Miracle Plays*, ed. A. C. Cawley, (Everyman); *Elizabethan and Stuart Plays*, ed. C. R. Baskerville, etc.

Dr. M. Best.

(3-0; 3-0)

ENGL 413. (3) **Shakespeare Survey**

Lectures on the development of Shakespeare's art in the histories, comedies and tragedies.

Texts: To be announced.

Dr. J. Coldwell, Mrs. M. Menhenett.

(3-0; 3-0)

ENGL 414. (3) **Special Studies in Shakespeare**

Intensive study of a few plays and related critical issues. English 413 is not a prerequisite but students must have a general knowledge of Shakespeare's work. Since enrolment is limited, permission of the Department is necessary.

Texts: To be announced.

Dr. B. Kurth.

(Offered this year, but will not be offered in 1971-72).

(3-0; 3-0)

ENGL 418. (3) **Poetry and Prose of the 17th Century excluding Milton**

A study of the major trends in poetry and prose. Some attention will be given to the social, artistic, religious and philosophical background of the period.

Essays and some outside reading will be required.

Texts: A. M. Witherspoon & F. L. Warnke, eds., *Seventeenth Century Prose and Poetry*, 2nd ed.; Francis Bacon: *A Selection of His Works*, ed. S. Warhaft; John Bunyan, *Pilgrim's Progress* (Rinehart).

Dr. B. Gooch.

(Offered this year, but will not be offered 1971-72).

(3-0; 3-0)

ENGL 419. (3) **Milton**

An intensive study of Milton's poetry, with most emphasis on *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*. Some attention will be given to the prose.

Attention will be paid to the relationship of Milton's work to the classical and biblical tradition. Students will be expected to read at least one of the major classical epics (*The Iliad*, *The Odyssey*, or *The Aeneid*) and selected parts of the Bible. Seventeenth century trends in literary, artistic, political and religious thought and style will be alluded to from time to time; but the emphasis will be on the enjoyment of Milton's poetry, not on background studies.

At least one seminar report and one research paper will be required.

Text: *Milton, Complete Poetry and Major Prose*, ed. M. Y. Hughes.

Mr. G. Forbes.

(3-0; 3-0)

ENGL 420. (3) **Literature of the Restoration and the Augustan Periods**

Particular emphasis will be placed on Restoration Comedy, Dryden, Pope, Swift, and Dr. Johnson.

Dr. S. Macey.

(3-0; 3-0)

ENGL 421. (3) **Literature of the Mid and Late 18th Century**

Primarily poetry and criticism of the period. Particular emphasis will be placed on Thomson, Gray, Burns, Collins, Cowper and Blake.

Texts: To be announced.

Dr. W. Benzie.

(Offered this year, but will not be offered in 1971-72).

(3-0; 3-0)

ENGL 422. (3) **British Drama from the Restoration to the end of the 19th Century**

A study of the major types of drama: Restoration comedy and tragedy, heroic drama, "laughing and sentimental" comedy of the eighteenth century, ballad opera, romantic drama, Victorian melodrama, and the "New Drama" of social concern.

Texts: To be announced.

(Not offered this year, intend to offer 1971-72).

(3-0; 3-0)

ENGL 423. (3) **The beginning of the British Novel in the 17th and 18th centuries**

This course stresses the eighteenth century novel, and is based on primary texts rather than on secondary sources. Special attention will be given to the rise of the middle classes and the satiric reaction in terms of aristocracy, intellect, and taste.

Texts: Bunyan, *Pilgrim's Progress*; Defoe, *Robinson Crusoe*, and *Moll Flanders*; Richardson, *Pamela*; Fielding, *Joseph Andrews* and *Tom Jones*; Sterne, *Tristram Shandy* and *Sentimental Journey*. The course will conclude with a Gothic novel; an oriental novel; and works by Smollett, Fanny Burney, and Jane Austen.

Background reading: Walter Allen, *The English Novel*, or Ian Watt, *The Rise of the Novel*.

Dr. J. Hayman.

(3-0; 3-0)

ENGL 424. (3) **The British Novel in the 19th Century**

Texts: Sir Walter Scott, *Heart of Midlothian*, ed. Raleigh; Radcliffe, *Mysteries of Udolpho*; Jane Austen, *Northanger Abbey*, ed. Wright; Jane Austen, *Emma* (Riverside Edn.); Chas. Dickens, *Martin Chuzzlewit* and *Great Expectations*, ed. Earle Davis; Wm. Thackeray, *Vanity Fair*, eds. G. and K. Tillotson; A. Trollope, *The Warden* and *Barchester Towers*, ed. L. Auchinloss; Geo. Eliot, *Middlemarch*, ed. G. S. Haight; C. Bronte, *Jane Eyre*, ed. M. Shorer; Emily Bronte, *Wuthering Heights*, ed. W. M. Sale; Thos. Hardy, *Return of the Native*, ed. Jas. Gindin; Geo. Meredith, *The Egoist*, ed. L. Stevenson; Joseph Conrad, *Lord Jim*, ed. T. Moser; D. H. Lawrence, *The Rainbow*; Walter Allen, *The English Novel*.

Mr. R. J. Bishop.

(3-0; 3-0)

ENGL 426. (3) **Problems in American Literature**

Two alternative seminar courses are offered in 1970-71:

(a) The American Experience, 1950-1970.

This seminar is in two parts:

(i) First Term. A study of four prose writers whose work is central to the period: Henry Miller, Edward Dahlberg, Norman Mailer and James Baldwin.

Texts: Miller, *Tropic of Cancer*, *Black Spring*, *The Colossus at Maroussi*, *The Rosy Crucifixion* (trilogy); Dahlberg, *Bottom Dogs*, *The Sorrows of Priapus*, *Can These Bones Live*, *Because I was Flesh*; Mailer, *The Naked and the Dead*, *Barbary Shore*, *Advertisements for Myself*, *The Armies of the Night*; Baldwin, *Go Tell It on the Mountain*, *Another Country*, *The Fire Next Time*, *Notes of a Native Son*, *Nobody Knows My Name*.

(ii) Second Term. The Beat and Black Mountain poets. Among those whose work will be considered are: Gregory Corso, Lawrence Ferlinghetti, Gary Snyder, Allen Ginsberg, Charles Olson, Cid Corman, Robert Creeley, Robert Duncan, Denise Levertov, Paul Blackburn, Louis Zukofsky, Frank O'Hara, Bob Dylan.

Texts: *The New American Poetry*, ed. Donald M. Allen (Grove Press); *The Poetry of Rock*, ed. Richard Goldstein (Bantam).

A list of additional reading will be given during term.

Prerequisite: A course in American Literature (which may be taken concurrently), or permission of the instructor.

Limited to 20 students.

Dr. C. Doyle.

(3-0; 3-0)

(b) American Renaissance.

Study of the backgrounds and achievements of the sudden flowering of American literature in the period 1840-1860. Readings will concentrate on the six major figures: Poe, Emerson, Thoreau, Hawthorne, Melville and Whitman, though some important minor works and authors will be included.

Texts: Poe, *Poetry and Prose*; Emerson, *Selected Writings*; Thoreau, *The Portable Thoreau*; Hawthorne, *The Scarlet Letter*, *The House of the Seven Gables*; Melville, *Moby Dick*, *The Confidence-Man*, *White Jacket*; Whitman, *Leaves of Grass*; Cooper, *Satanstoe*; Parkman, *The Oregon Trail*; Dana, *Two Years Before the Mast*; Stowe, *Uncle Tom's Cabin*; Matthiessen, *American Renaissance*, Trollope, *North America*; additional texts to be announced.

Prerequisites: A course in American Literature (which may be taken concurrently), or permission of the instructor.

Limited to 20 students.

Dr. N. Smith.

(3-0; 3-0)

ENGL 427. (3) **American Poetry to the Early Twentieth Century**

Detailed study of the poetry of Whitman, Emily Dickinson, E. A. Robinson, Robert Frost. Primary emphasis will be on these writers. Some attention will be given to the development of American Poetry in the Colonial and Revolutionary periods (Edward Taylor, Freneau) and to the writings on poetry of Poe, Emerson and Sidney Lanier.

Where appropriate, the work of other nineteenth-century American poets will be considered. A reasonable amount of outside reading will be required, the reading list to be issued early in the first term.

Texts: *American Poetry*, eds. Allen, Rideout & Robinson (Harper and Row).

(Not offered 1970-71, intend to offer 1971-72). (3-0; 3-0)

ENGL 428. (3) **American Fiction to 1900**

A study of the development of the novel and the short story in the nineteenth century, from the beginnings (Brockden Brown & Cooper), through the Romantics (Poe, Hawthorne, Melville) to the realists (James, Stephen Crane, Norris). Particular attention will be paid to the major figures: Poe, Hawthorne, Melville, Twain and James.

Texts: Poe, selected stories; Hawthorne, selected stories; Melville, *Moby-Dick*; Twain, *Huckleberry Finn*; James, *The Portrait of a Lady*. Additional texts to be announced.

Dr. H. F. Smith. (3-0; 3-0)

ENGL 429. (3) **Twentieth Century American Fiction**

Intensive study of the work of twentieth-century American writers, to evaluate the technical achievement in particular works and to discuss them in relation to cultural problems in American society. Two alternative sections will be offered in 1970-71. Emphasis in one section will be cultural-sociological, and in the other, critical-historical. Both sections will study the following:

Text: Sherwood Anderson, *Winesburg, Ohio*; Ernest Hemingway, *The Sun Also Rises*; F. Scott Fitzgerald, *Tender is the Night*; Ralph Ellison, *Invisible Man*; William Styron, *Lie Down in Darkness*; Bernard Malamud, *The Assistant*.

Section (a) will study, along with the major American works, the novels of four minority groups that have achieved significant expression in modern American literature: Southern, Black American, Catholic and Jewish. Representative of these groups are Faulkner, James Baldwin, Flannery O'Connor and Saul Bellow, examples of whose work will be studied in detail.

Dr. W. Goede.

Section (b) will study the development of American prose fiction from 1900 to the present. The social and intellectual background will be considered and also changing ideas and attitudes as reflected in particular works of fiction. Detailed attention will be given to the work of Fitzgerald, Hemingway and Faulkner. The following writers will also be studied: Edith Wharton, John Steinbeck, Nathanael West, Theodore Dreiser and John Updike.

Dr. C. Partridge.

NOTE: Students will enrol *either* for Section (a) *or* for Section (b). (3-0; 3-0)

ENGL 430. (3) **The Romantic Period (1790-1830)**

Chiefly Wordsworth, Coleridge, Byron, Shelley and Keats. Some attention is paid to the prose writers of the period.

Texts: *Byron*; *Coleridge*; *Keats*; *Shelley*; *Wordsworth*.

Approved editions of texts will be available in the University Bookstore.

Dr. C. Lambertson, Mr. G. McOrmond. (3-0; 3-0)

ENGL 431. (3) **Victorian Poetry and Prose (1830-1890)**

The course will emphasize Tennyson, Browning, Arnold and Hopkins but will include most of the other poets of the period. In addition some of the main movements of criticism and ideas will be studied.

Texts: Buckley, *Poems of Tennyson*; Smalley, *Poems of Robert Browning*; Culler, *Poetry and Criticism of Matthew Arnold*; Pick, *A. Hopkins Reader*; Lang, *The Pre-Raphaelites and Their Circle*; Buckler, *Prose of the Victorian Period*.

Dr. L. Adey, Dr. V. Neufeldt. (3-0; 3-0)

ENGL 433. (3) **Modern Period, English and Irish Literature, 1890-1914**

This course is based primarily on the works of Hardy, Housman, Butler, Wells, Galsworthy, Shaw, Wilde, Hopkins, Yeats, Synge and Conrad. The background of ideas and social forces as revealed through the literature and related arts of the period will receive close attention.

Texts: Butler, *Erewhon and Erewhon Revisited*; Hardy, *Jude the Obscure*; Housman, *Collected Poems*; Shaw, *Major Barbara, Man and Superman, Mrs. Warren's Profession and John Bull's Other Island* (in *Genius of the Irish Theatre*); Synge, *Four Plays and The Aran Islands*; Wells, *Tono-Bungay*; Wilde, *Plays, Prose Writings and Poems*; Yeats, *Collected Poems*; Galsworthy, *The Man of Property*; Conrad, *The Secret Agent*.

Dr. F. Mayne.

(3-0; 3-0)

ENGL 434. (3) **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, including Wilfred Owen, Edward Thomas, Edith Sitwell, T. S. Eliot, Louis MacNiece, William Empson, Dylan Thomas, Kathleen Raine, and others.

Prof. Robin Skelton.

(3-0; 3-0)

ENGL 435. (3) **Modern American Poetry**

Detailed study of the poetry of Stevens, Pound, William Carlos Williams and Hart Crane. Primary emphasis will be on these writers. The course will include consideration of the Imagist movement and the Fugitives. Opportunity will be provided for the study of such other poets as Marianne Moore, E. E. Cummings, Robert Lowell, John Berryman, Theodore Roethke.

Texts: Wallace Stevens, *Poems* (Vintage); William Carlos Williams, *Selected Poems* (New Directions); Ezra Pound, *Selected Poems* (Faber); Hart Crane, *Complete Poems* (Anchor Book).

Dr. Carol Johnson.

(3-0; 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 of some of their contemporaries and successors. Emphasis is critical rather than historical. Essays are required and students are urged to form their own judgments with little reference to the works of critics.

Texts: Joyce, *A Portrait of the Artist as a Young Man, Ulysses*; Lawrence, *Women in Love*. 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.

Dr. N. Alford, Dr. J. Peter.

(3-0; 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 twentieth-century drama, including a brief historical survey of 19th century theatre and the development in the 20th century of the musical. 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 and will include the review of one theatre production. Throughout, concentration will be on the text rather than on the works of critics.

Texts: Shaw, *Pygmalion, Heartbreak House*; Maugham, *The Constant Wife*; Coward, *Private Lives*; O'Casey, *Juno and the Paycock*; Eliot, *The Cocktail Party*; Fry, *The Lady's Not for Burning*; Beckett, *Waiting for Godot*; Behan, *The Quare Fellow*; Osborne, *Look Back in Anger*; Delaney, *A Taste of Honey*; Wesker, *Roots* (in *Wesker Trilogy*); Pinter, *The Caretaker*; Bolt, *A Man for All Seasons*; Mortimer, *Lunch Hour*; N. F. Simpson, *One Way Pendulum*; Arden, *Sergeant Musgrave's Dance*; Shaffer, *The Royal Hunt of the Sun*; Tom Stoppard, *Rosencrantz and Guildenstern are Dead*; O'Neill, *The Iceman Cometh*; *The Emperor Jones*; Odets, *Awake and Sing*; Steinbeck, *Of Mice and Men*; Rice, *The Adding Machine*; Wilder, *Our Town*; Maxwell Anderson, *Winterset*; Hellman, *The Little Foxes*; Miller, *A View from the Bridge*; Albee, *Who's Afraid of Virginia Woolf?*; Baldwin, *Blues for Mister Charlie*; Lerner & Loewe, *My Fair Lady*.

Dr. A. Saddlemyer.

(3-0; 3-0)

ENGL 438. (3) **Canadian Literature**

A survey of Canadian creative literature in English, primarily poems, novels, and short stories, including literature written in and about French Canada (in translation). The emphasis will be on the twentieth century utilizing earlier literature chiefly as it contributes to the objective of understanding ourselves better as Canadians. The course will include a consideration of regional literature and influences from abroad.

Texts: *Canadian Anthology*, revised edition, ed. C. Klinck and R. Watters (Gage); *Canadian Short Stories*, second series, ed. R. Weaver (Oxford); New Canadian Library (McClelland & Stewart) editions of: Leacock, *Sunshine Sketches*; Ostenso, *Wild Geese*; Callaghan, *Such is my Beloved*; Roy, *The Tin Flute*; Buckler, *The Mountain and the Valley*; E. Wilson, *Swamp Angel*; M. Laurence, *The Stone Angel*; optional reading of other poetry and fiction.

Assignments: One research paper in each term.

Dr. R. Lawrence.

(3-0; 3-0)

ENGL 439. (3) **Commonwealth Literature**

Three regions are designated for detailed study — New Zealand, Australia and the British West Indies. The course will concentrate on twentieth-century novels, short stories and poetry; it will attempt to discuss two factors — the essential value of the particular literary works, and cultural problems of identity and self-expression confronting both creative artists and people in the new-world territories. Approximately one third of the course will be devoted to each territorial area, and it is hoped that equal attention will be given to the three literary genres.

NOTE: Enrolment will be limited. Preference will be given to students selecting other courses in the Pacific Studies programme.

Texts: The following authors will be among those studied: Katherine Mansfield, Randolph Stow, Ian Cross, Patrick White, John Mulgan, Christopher Brennan, V. S. Naipaul, Derek Walcott, Judith Wright, Wilson Harris.

Dr. C. Partridge.

(3-0; 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: Honour standing in fourth year.

Texts: Robert D. Stevick, *English and Its History — The Evolution of a Language*; G. L. Brook, *History of the English Language* (Norton).

Dr. R. F. Leslie and Mrs. I. Sheeter.

(1-0; 1-0)

ENGL 441. (3) **Old English Literature**

A study of the language and major literary texts of the Anglo-Saxons.

Texts: G. L. Brook, *An Introduction to Old English*; Sweet's *Anglo-Saxon Reader in Prose and Verse* (Revised by Dorothy Whitelock); *Old English Literature: Twenty-two Analytical Essays*, eds. Martin Stevens and Jerome Mandel; P. H. Blair, *Introduction to Anglo-Saxon England*; *Beowulf and the Fight at Finsburg*, ed. F. Klaeber.

Dr. R. F. Leslie and Mrs. I. Sheeter.

(3-0; 3-0)

ENGL 443. (3) **Chaucer**

A study of Chaucer with emphasis on the *Canterbury Tales*.

Texts: *The Complete Work of Geoffrey Chaucer*, ed. F. N. Robinson; *The Age of Chaucer* (Pelican Guide to English Literature), ed. Boris Ford. Other texts to be announced.

Dr. R. F. Leslie.

(3-0; 3-0)

ENGL 444. (3) **Middle English Literature**

A study of the major literary works of the fourteenth and fifteenth centuries (excluding Chaucer) with particular reference to *Sir Gawain and the Green Knight*, *Pearl*, *Piers Plowman*, and selections from romances, lyrics and drama.

Texts: To be announced.

Mr. A. Edwards.

(3-0; 3-0)

ENGL 446. (3) **Third Year Honours Seminar**

A seminar in the history of critical theory, with a study of its relation in practice to specific genres and styles.

Text: *Criticism: The Major Texts*, ed. Walter J. Bate.

Dr. W. Benzie, Mr. T. Cleary, Dr. P. Köster.

(3-0; 3-0)

\*ENGL 451. (1 ½) **Honours Tutorial: Mediaeval**

Prerequisite: Honour standing in Third and Fourth years, or by permission of the Department. (3-0)

\*ENGL 452. (1 ½) **Honours Tutorial: Renaissance, minus Shakespeare**

Prerequisite: Honour standing in Third and Fourth years, or by permission of the Department.

Mr. T. Sherwood.

(3-0)

\*ENGL 453. (1 ½) **Honours Tutorial: Seventeenth Century to Milton**

Prerequisite: Honour standing in Third and Fourth years, or by permission of the Department.

Mr. T. Sherwood.

(3-0)

\*ENGL 454. (1 ½) **Honours Tutorial: Dryden through the Eighteenth Century**

Prerequisite: Honour standing in Third and Fourth years, or by permission of the Department.

Mr. H. Summerfield.

(3-0)

\*ENGL 455. (1 ½) **Honours Tutorial: Nineteenth Century**

Prerequisite: Honour standing in Third and Fourth years, or by permission of the Department.

Dr. F. Riddle.

(3-0)

\*ENGL 456. (1 ½) **Honours Tutorial: American Literature to 1914**

Prerequisite: Honour standing in Third and Fourth years, or by permission of the Department.

Dr. C. Doyle.

(3-0)

ENGL 490. (3) **Directed Reading in English**

Students must obtain the consent of the Department before registering for this course.

ENGL 499. (1 ½) **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 or Fourth years.

Prerequisite: Honour standing in Fourth year.

(2-0; 2-0)

\*To be offered in the first or second term, or in both terms, in accordance with the demand, as determined at Registration.

#### LIBERAL ARTS

LA 305 (formerly ENGL 305). (3) **The Background of Western Literature**

A survey of ideas, themes and myths that have shaped the course of Western culture, with particular reference to English Literature. The aim of the course is to investigate critically some of man's greatest writings and to explore from varying points of view the reasons why these works are considered significant.

Prerequisite: English 200 for English students only; other students will take it as an elective after successful completion of 15 units of study at University level, or special permission.

(3-0; 3-0)

## GRADUATE COURSES AND SEMINARS

ENGL 500. (3) <b>Bibliography and Methods of Research and Criticism</b>	(3-0; 3-0)
ENGL 510. (3) <b>Studies in Old English Literature</b>	(3-0; 3-0)
ENGL 515. (3) <b>Studies in Middle English Literature</b>	(3-0; 3-0)
ENGL 520. (3) <b>Studies in Renaissance Literature</b>	(3-0; 3-0)
ENGL 530. (3) <b>Studies in the Literature of the 17th Century</b>	(3-0; 3-0)
ENGL 540. (3) <b>Studies in the Literature of the 18th Century</b>	(3-0; 3-0)
ENGL 550. (3) <b>Studies in the Literature of the 19th Century</b>	(3-0; 3-0)
ENGL 560. (3) <b>Studies in the Literature of the 20th Century</b>	(3-0; 3-0)
ENGL 570. (3) <b>Studies in American Literature</b>	(3-0; 3-0)
ENGL 580. (3) <b>Studies in Commonwealth Literature</b>	(3-0; 3-0)
ENGL 590. (3) <b>Directed Reading</b>	(3-0; 3-0)
ENGL 595. (3) <b>Seminar in Creative Writing</b>	
ENGL 599. (Credit to be determined) <b>M.A. Thesis</b>	
ENGL 699. (Credit to be determined) <b>Ph.D. Dissertation</b>	

## DEPARTMENT OF FRENCH LANGUAGE AND LITERATURE

- Olivier M. Abrioux, L. ès L., D.E.S. (*Paris*), Ph.D. (*Aberdeen*), Professor and Head of the Department.
- Miss Gwladys V. Downes, M.A. (*Brit. Col.*), Docteur de l'Université de Paris, Professor.
- W. Harry Hickman, M.A. (*Brit. Col.*), Docteur de l'Université de Paris, Professor.
- Jean-Paul Vinay, L. ès L., D.E.S. (*Paris*), M.A. (*London*), Agrégé de l'Université de France, officier d'Académie, F.R.S.C., Professor.
- Ralph W. Baldner, A.B. (*Miami, Ohio*), M.A. (*Vanderbilt*), Ph.D. (*Calif.*), Associate Professor.
- P. M. H. Edwards, F.T.C.L., A.R.C.M., L.R.A.M. (*London*), B.A. (*Brit. Col.*), M.A. (*Columbia*), M.A. (*Harvard*), Ph.D. (*Penn.*), Associate Professor.
- David A. Griffiths, M.A. (*Brit. Col.*), Docteur de l'Université de Paris, Associate Professor.
- Ronald R. Jeffels, C.D., B.A., B.Ed. (*Alta.*), M.A. (*Cantab.*), Associate Professor.
- Barrington F. Beardsmore, B.A. (*Liverpool*), M.A. (*McMaster*), Ph.D. (*Brit. Col.*), Assistant Professor.
- Miss Jeanne E. Bourguès, L. ès L. (*Toulouse*), Assistant Professor.
- John C. E. Greene, M.A. (*Alta.*), Docteur de l'Université de Grenoble, Assistant Professor.
- Mrs. Elaine Limbrick, B.A. (*London*), Docteur du III<sup>e</sup> cycle (*Poitiers*), Assistant Professor.
- Jean-Pierre Mentha, L. ès Sc.Soc. (*Geneva*), M.Ed. (*Brit. Col.*), Assistant Professor.
- Gérald Moreau, B.A. (*Manitoba*), M.A. (*Laval*), Docteur de l'Université de Poitiers, Assistant Professor.
- Mrs. Bérangère B. Steel, L. ès L. (*Paris*), Assistant Professor.
- Jennifer R. Walters, B.A. (*London*), L. ès L. (*Lille*), Ph.D. (*London*), Assistant Professor.
- Kenneth R. Prior, B.A. (*London*), Lecturer.
- Neil V.-J. Thompson, B.A. (*London*), Lecturer.
- Derek J. Turton, B.A. (*Leeds*), Lecturer.

### GENERAL, MAJOR AND HONOURS PROGRAMMES

NOTE: All students planning to take a concentration in a General Programme or a Major or Honours in the Department must take English 200 and Linguistics 100.

Students wishing to take courses at the Third and Fourth Year level are reminded that they must have the prerequisites of the first two years.

Students wishing to take Third and Fourth Year courses to meet requirements for a B.A. degree on the general, major or honours programme, must satisfy the Department that they have satisfactory standing in appropriate courses at the 200 level. The course numbered 302 must be taken in the Third Year.

An Honours programme in French normally requires a total of 66 units over a four-year period.

Students specializing in French (including Honours), will find that they have sufficient electives to enable them to concentrate in a second field—for example, another language, Classics, English, History, Linguistics. Attention is called also to the availability of a new course, Liberal Arts 305. 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 Head will be happy to assist students with their selection of courses.

## PROGRAMMES IN FRENCH

General — First Year: French 180; Second Year: French 285 and 290; Third and Fourth Years: French 302 and six units of French courses numbered above 400.

Major — First Year: French 180; Second Year: French 285 and 290; Third and Fourth Years: French 302 and at least twelve units of French courses numbered above 400.

Honours — First Year: French 180 and one year of Latin (if Latin 92 has not been passed in high school); Second Year: French 285 and 290; Third and Fourth Years: French 302 and 320/420 and at least four other French courses numbered above 400, selected after consultation with the Head of the Department.

## COURSES OFFERED

### FREN 160 (formerly 140). (3) **Elementary Composition and Oral Practice**

(Prerequisite: French 11) — Instruction in French grammar and composition, based on a grammar text and on numerous short readings. Regular compositions will be required. One hour a week will be spent in the laboratory drilling orally basic grammatical patterns.

NOTE: Not open to those who have completed Grade 12 French.

Texts: To be announced.

Members of the Department. (3-1; 3-1)

### FREN 180. (3) **French Language and Literature**

(Prerequisite: French 12) — Study of contemporary French texts, grammar, and pronunciation.

Texts: Albert Camus, *L'Étranger*, and one modern play to be announced. The grammar book and other texts will be announced by the instructor.

Short weekly assignments will be given.

Members of the Department. (3-1; 3-1)

### FREN 240. (3) **Intermediate French**

(Prerequisite: French 140 or secondary school French 110)

This course is not open to students who have completed French 180 or secondary school French 120.

Texts: Carlut and Meiden, *French for Oral and Written Review*; Galpin and Milligan (editors), *An Intermediate Reader*; Albert Camus, *L'Étranger*.

Members of the Department.

(Not offered after 1970-71). (4-0; 4-0)

### FREN 260. (3) **Intermediate Composition and Contemporary Literature**

(Prerequisite: French 160 or equivalent) — Study of contemporary French and French-Canadian texts, and a review of grammar. Regular composition assignments will be required. One hour a week will be spent in seminar-style oral discussion of texts.

Members of the Department.

(Not offered 1970-71; will replace French 240 after 1970-71). (3-1; 3-1)

### FREN 280. (3) **French Language and Literature**

(Prerequisite: French 180 or secondary school French 120) — This course is given in French. Literary texts are studied and there are frequent written assignments during the term. The formal grammar work consists of a continuous review of essential points in order to aid the student in his writing.

Texts: Jean Anouilh, *Antigone*; André Gide, *La Symphonie Pastorale*; François Mauriac, *Thérèse Desqueyroux*; J.-P. Sartre, *Huis-Clos*; and another text to be announced.

Members of the Department. (3-0; 3-0)

FREN 285 (formerly 280, Sections 1 and 2). (3) **French Language and Literature**

(Prerequisite: French 180) — This course, given in French and taken in conjunction with French 290, is a prerequisite for a major or an Honours programme.

Texts: A. Lévêque, *Histoire de la Civilisation Française*; Molière, *Le Malade Imaginaire*, Editions Bordas; F. S. Giese and W. F. Wilder, *French Lyric Poetry*; F. Mauriac, *Le Mystère Frontenac*, Edition de poche; a modern play to be announced.

Members of the Department.

(3-0; 3-0)

FREN 290. (3) **French Oral and Written Practice**

(Prerequisite: French 180) — This course is given in French and written exercises are expected from the class every week.

Texts: Marguerite-Marie Dubois, *Dictionnaire moderne* (Larousse); O'Brien, Lafrance and Brachfeld, *Advanced French*; Jean-Paul Sartre, *Les Jeux sont faits*; A. Alvernhe, Y. Brunsvick and P. Ginestier, *En France* (Didier).

Members of the Department.

(3-1; 3-1)

FREN 302. (3) **Advanced Composition and Stylistics**

This course, conducted entirely in French, will require frequent written exercises involving vocabulary and grammar, short compositions and essays.

Texts: Sonet et Shortliffe, *Review of Standard French*; E. Rostand, *Cyrano de Bergerac*; P. Ginestier, A. Maillet, A. Alvernhe, *Culture et Civilisation françaises*, Edition Didier.

Mrs. Steel and members of the Department.

(2-2; 2-2)

FREN 350. (3) **An Advanced course in French, with concentration on oral work, using**  
*Voix et Images de France*

This course is designed to meet the needs of teachers-in-training and of secondary school teachers of French. Admission requires the consent of the Head of the French Department.

Credit may be given as part of a major in the Faculty of Education or as an elective. It can also be taken as an elective in the Faculty of Arts and Science. (1-5; 1-5)

Miss Bourguès and Mr. Mentha.

FREN 360. (3) **Aspects of French Culture**

(Prerequisite: French 280 (terminal), mark of C or better, or French 240 — mark of B— or better — or consent of Head of Department.)

Consists of regular short compositions based on general texts dealing with French and French-Canadian civilization, and of discussion and some major compositions based on individual texts on French and French-Canadian institutions, personalities and social problems. Four main areas will be drawn upon: French history, the arts in France, contemporary French society and French-Canadian society. The course is designed to develop, in a broad cultural context, the student's oral and written expression in French.

Texts: Brodin and Ernst, *La France et les Français*; Kenan, *Galerie de Portraits contemporains*; La Pierre, *Québec, Hier et aujourd'hui*; Langevin, *Poussière sur la Ville*.

Dr. Greene and Dr. Moreau.

(3-0; 3-0)

NOTE: A terminal course which is not open to students concentrating in French.

FREN 401. (3) **Literature of the Eighteenth Century**

Texts: Havens, *The Age of Ideas*, and principal writings of Prévost, Marivaux, Voltaire, Rousseau, Diderot, Laclous.

(3-0; 3-0)

FREN 409. (3) **Literature of the Seventeenth Century**

Texts: Lagarde et Michard, *XVII<sup>e</sup> Siècle*; *La Princesse de Clèves* (ed. Ashton); and the following plays in Bordas edition: *Le Cid*; *Polyeucte*; *Britannicus*; *Phèdre*; *Les Précieuses ridicules*; *L'Ecole des Femmes*; *Le Misanthrope*; *Les Femmes Savantes*.

(3-0; 3-0)

FREN 411. (3) **Nineteenth Century Part I (Romanticism)**

A study of the leading French authors of the first half of the nineteenth century including the "social romantics" and the romantic realists.

Texts: Lagarde et Michard, *XIX<sup>e</sup> Siècle*; Hugo, *Hernani* (ed. Bordas); Hugo, *Ruy Blas* (ed. Bordas); Vigny, *Chatterton*; Chateaubriand, *René*; Balzac, *Eugénie Grandet*; Stendhal, *Le Rouge et le Noir*; and others to be announced.

There will be frequent written assignments.

(May be offered in 1970-71; will be offered 1971-72). (3-0; 3-0)

FREN 412. (3) **Nineteenth Century Part II**

Realism, naturalism and idealism in the novel and in poetry.

Texts: Guthrie and Diller, *French Literature and Thought since the Revolution*; Bourget, *Le Disciple*; Flaubert, *Madame Bovary*; Fromentin, *Dominique*; Huysmans, *A Rebours*; Labiche, *Le Voyage de Monsieur Perrichon*; Maupassant, *Boule de Suif*; Zola, *Germinal*.

Fortnightly written assignments during the first term; three essays during the second term. (3-0; 3-0)

FREN 414. (3) **Poetry from Baudelaire to the Surrealists**

A systematic study of the Parnassian movement, the origins and significance of symbolism, the Decadent school and Post-World War I poetic trends.

Texts: To be announced. (3-0; 3-0)

FREN 415. (3) **Modern French Theatre**

Class discussion and individual reports in French bearing on the plays studied. Monthly essays based on outside reading.

Texts: Guicharnaud, *Modern French Theatre from Giraudoux to Genêt*; representative plays by Anouilh, Beckett, Camus, Claudel, Cocteau, Giraudoux, Ionesco, Montherlant, Sartre, Vian, etc. (3-0; 3-0)

FREN 416. (3) **Modern French Novel**

(Not offered 1970-71). (3-0; 3-0)

FREN 418. (3) **French-Canadian Literature**

A survey of French literature in Canada before 1900; a study of French-Canadian literature in the twentieth century with emphasis on the novel, theatre and poetry since 1945.

Texts: Bessette, Geslin, Parent, *Histoire de la littérature canadienne-française*; Hamelin, *Le Théâtre au Canada français*; Sylvestre, *Anthologie de la poésie canadienne*; selected works by Bessette, Blais, Gélinas, Hébert, Hémon, Langevin, Lemelin, Roy, Thériault, and others.

Monthly essays and classroom *exposés*.

(May be offered in 1970-71; will be offered in 1971-72). (3-0; 3-0)

FREN 320/420. (3) **Honours Seminar**

To be taken in both Third and Fourth Years.

Under the direction of members of the Department an Honours candidate, in both Third and Fourth Years, will read widely in the literature of the various centuries, particularly in those in which he has not taken a lecture course. He will also write at least four major essays during the two-year period. The final examination in this course will consist of a comprehensive written and a comprehensive oral test.

(3-0; 3-0)

FREN 425. (3) **History of the Language**

(Not offered 1970-71). (3-0; 3-0)

FREN 426. (3) **Comparative Stylistics of French and English**

A contrastive study of the semantic and stylistic resources of French and English at the structural and cultural levels.

Texts: Vinay and Darbelnet, *Stylistique comparée du français et de l'anglais* (Montréal, Beauchemin); *Cahier d'exercices No. 1* (Montréal, Beauchemin).

Prof. J.-P. Vinay. (3-0; 3-0)

## DEPARTMENT OF GEOGRAPHY

- Charles N. Forward, B.A., M.A. (*Brit. Col.*), Ph.D. (*Clark*), Associate Professor and Acting Head of the Department.
- Bryan H. Farrell, M.A. (*Wash.*), B.A., Ph.D. (*N.Z.*), Professor.
- W. R. Derrick Sewell, B.Sc. (*London*), M.A., Ph.D. (*Wash.*), Professor.
- Rudolph Wikkramatileke, B.A. (*Ceylon*), M.A. (*Clark*), Ph.D. (*London School of Economics*), Professor.
- Charles H. Howatson, B.A., M.A. (*Brit. Col.*), Associate Professor.
- D. Richard Lyeon, B.Sc. (*Idaho*), A.M. (*George Washington*), Ph.D. (*Wash.*), Associate Professor.
- Takashi Yamaguchi, B.Sc. (*Tokyo*), M.A. (*Toronto*), Visiting Associate Professor.
- Harold D. Foster, B.Sc., Ph.D. (*London*), Assistant Professor.
- Paul H. Juncker, B.S., M.S., Ph.D. (*Calif.*), Assistant Professor.
- David Chuen-Yan Lai, B.A., M.A. (*Hong Kong*), Ph.D. (*London School of Economics*), Assistant Professor.
- J. Douglas Porteous, B.A., M.A. (*Oxon.*), Ph.D. (*Hull*), Assistant Professor.
- Bret Wallach, M.A., Ph.D. (*Calif.*), Assistant Professor.
- Stephen K. Newsom, B.A. (*Oregon*), M.A. (*Wash.*), Lecturer.
- Stanton E. Tuller, B.A. (*Oregon*), M.A. (*Calif.*), Lecturer.
- Colin J. B. Wood, B.A. (*Wales*), M.A. (*McMaster*), Lecturer.
- Hilary B. Thomas, B.Sc. (*Wales*), Senior Laboratory Instructor.
- John F. Bryant, Senior Academic Assistant.

### GENERAL, MAJOR AND HONOURS PROGRAMMES

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 programmes for both bachelor degrees. Information about course combinations suited to specific professional objectives and about graduate programmes is available from the Department. In general, the Department recommends a language course, especially French, German, or Russian, advises an appropriate first-year mathematics course, especially Mathematics 170 and 171 for the B.A. Major and Honours programmes, and considers a second-year mathematics course, chosen in consultation with the Department, desirable for B.Sc. candidates. Moderate fees will be charged students in Geography 300, 401, and in certain courses with announced field trips.

Departmental Requirements for the B.A. in Geography.

General — 15 units: 101; 3 units chosen from 201, 203, 204 and 205; and 9 units of courses numbered 300 or above, 3 units of which selection must be a regional course (marked R).

Major — 24 units: 101; 203; 3 units chosen from 201, 204 and 205; 300; and 12 units of courses numbered above 300, 3 units of which selection must be a regional course (marked R).

Honours — 33 units minimum: 101; 203; 3 units chosen from 201, 204 and 205; 300; 499; and 18 other units in Geography courses numbered above 300 or in fields approved by the Department. At the end of the fourth year, the candidate will take an oral examination and submit an Honours Essay.

Departmental Requirements for the B.Sc. in Geography.

General — 15 units: 101; 203; and 9 units of courses chosen from 300, 302, 306, 320, 350, 351, 352, 353, 354, 401, 402, 403, 412, 441, 450 and 451.

Major — 24 units: 101, 203; 3 units chosen from 201, 204 and 205; 300; 12 units of courses chosen from 302, 306, 320, 350, 351, 352, 353, 354, 401, 402, 403, 412, 441, 450 and 451.

Honours — 33 units minimum: 101; 203; 3 units chosen from 201, 204 and 205; 300; 499; and 18 other units in Geography courses numbered above 300 or in fields approved by the Department. At the end of the fourth year, the candidate will take an oral examination and submit an Honours Essay.

## COURSES OFFERED

Geography 101 is prerequisite to all other geography courses. This prerequisite may be waived by the Department in certain circumstances.

### GEOG 101. (3) **Introduction to Geography**

An introduction to Systems Theory will be followed by a systems analysis of the evolution of the earth's surface as the interaction of inorganic, biotic, and cultural factors. Lectures will be organized around a developmental model, viewing the real world as the composite of six increasingly more complex systems: The Absolute Environment; The Atmospheric Environment; The Oceanic Environment; The Precambrian Environment; The Biotic Environment; and The Cultural Environment. Each successive stage in the model will receive greater attention than the preceding one. Local examples will be used when possible. Laboratory sessions will emphasize discussion of lectures and reading.

Dr. Juncker, Dr. Wallach and Mr. Wood. (2-2; 2-2)

### GEOG 201. (3) **Economic Geography**

An analysis of the areal distribution of economic activity, examining the characteristics of different industries, their inter-relationships with each other, and the characteristics of different economic regions. Theories of location and models of regional economic development are discussed and applied. Problems resulting from disparate levels of economic development, and from growth and decline of activities are considered.

(2-2; 2-2)

### GEOG 203. (3) **Physical Geography**

A study of meteorology, climatology, geomorphology, pedology, biogeography, hydrology, and their inter-relationships.

Mr. Tuller. (2-2; 2-2)

### GEOG 204. (3) (R) **Geography of Canada**

The course deals with the geography of Canada both systematically and regionally. Among the topics treated systematically are physiography, climate, vegetation, soils, population characteristics, transportation networks, economic development and metropolitan dominance. The character of regions is emphasized according to the following classification: Atlantic region, southern Quebec, southern Ontario, Prairie region, Canadian Cordillera, Subarctic and Arctic.

Dr. Forward. (2-2; 2-2)

### GEOG 205. (3) **Introduction to Cultural Geography**

A comparative and historical approach to the impact of ideas and social institutions upon landscape and the evolution of geographic areas. Cultural variations in man's perceived role in his environment and the attendant ethnocentric difficulties in adapting modern resource development to areas of traditional culture.

Dr. Wallach. (3-0; 3-0)

### GEOG 300. (3) **Research Methods in Geography**

The collection, analysis, and presentation of geographic data. Topics included are: field data, collection methods, documentary data services, elementary photo interpretation, descriptive and simple inductive statistics, and cartography. Field trips and field work will be an integral part of the course.

Mr. Newsom. (2-2; 2-2)

### GEOG 302. (1 ½) **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 processes of mutual interaction between the earth's surface and the atmosphere, and the role of differing surface types in creating the climate above them. Laboratory work will focus on a local, applied microclimatologic problem.

Prerequisite: Geography 203 or permission. First Term.

Mr. Tuller. (2-2; 0-0)

**GEOG 305. (3) Urban Geography**

As an introduction to the field or urban geography the course is very broad in scope. Among the topics studied are; the rise and growth of cities; location, size and spacing; economic base; population characteristics; urban transportation; residential, commercial and industrial structure of cities; the urban fringe; the metabolism of the city; urban renewal; and planning the urban environment.

Dr. Porteous.

(3-0; 3-0)

**GEOG 306. (1 ½) Biogeography**

An analysis of the areal distribution of biotic systems. Origins, dispersals, evolution, and limiting physical biotic and cultural factors as they relate to present day distribution patterns will be considered. The spatial model as a biogeographic methodology will be presented. Prerequisite: Geography 203 or permission. First Term. (2-2; 0-0)

**GEOG 307. (3) Historical Geography**

The geographical significance of the discovery, exploration and colonization of North America with special emphasis given to Canada. Geographical settings will be reconstructed for periods of particular historical significance. History 102 is recommended.

(3-0; 3-0)

**GEOG 308. (3) (R) The Geography of Southeast Asia**

A geographic survey of the regions and resources, both physical and human, of the countries of Southeast Asia together with a discussion of the problems associated with underdevelopment and the geographic implications of political differences in the area.

Dr. Wikkramatileke.

(3-0; 3-0)

**GEOG 311. (3) The Geography of Economic and Cultural Change**

A review of the variable factors affecting lesser developed parts of the world, and of technological, economic and cultural changes which result from the inter-action of these factors. The initial part of the course will be devoted to a systematic treatment of factors affecting change. The second part of the course will consist of a number of geographical studies of areas at different stages of development. Students without the usual prerequisite who are particularly interested in the course should discuss the matter with the instructor.

Dr. Wikkramatileke.

(3-0; 3-0)

**GEOG 320. (1 ½) Hydrology**

A study of hydrology, focusing on the various factors that influence the distribution of water resources in time and space. The major world hydrologic subcycles will be theoretically derived, classified and located. The spatial model as a geographic methodology will be presented. Prerequisite: Geography 203 or permission. First Term.

Dr. Juncker.

(2-2; 0-0)

**GEOG 340. (1 ½) Population Geography**

The role of population and labor force in the growth and decline of the economies of regions and the impact of changes in numbers and composition of the population on decisions on public investments and policies will be considered, both from a theoretical viewpoint and in the context of case studies. Selected demographic and graphic techniques will be dealt with, as will the use and interpretation of census materials.

(Not open to students who have taken Geography 304).

First Term.

(3-0; 0-0)

**GEOG 341. (1 ½) Industrial Geography**

An analytical examination of factors affecting location of manufacturing industries and the growth of manufacturing regions. Topics of discussion 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. (Not open to students who have taken Geography 310). First Term.

Dr. Lai.

(3-0; 0-0)

**GEOG 342. (1 1/2) Transportation and Commodity Flows**

Interregional and intercity modes of transportation are studied in terms of their function as dynamic features of the economic and cultural landscape. Railway, highway, pipeline, water, and air transport modes are considered as integrated systems that handle the movement of commodities and passengers within national and continental areas. Specific examples of commodity flows are studied in relation to economic development and the nodal function of cities. The locational attributes and functions of seaports, airports and land transportation terminals as interchange points in transport networks are fully explored. The effect of possible transport innovations also is investigated. Second Term. (0-0; 3-0)

**GEOG 343. (1 1/2) Regional Analysis**

An examination of socio-economic 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 readings and two or three short term projects. Prerequisite: Geography 201, 204 or 205 or permission.

(Not open to students who have taken Geography 442 in 1969-70). Second Term. (0-0; 3-0)

**GEOG 350. (3) Introduction to Resource Geography**

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. These resources may include land, water, the atmosphere, fisheries, wildlife and forests. 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. Contemporary problems and issues of resource management in North America such as rapidly growing population, increasing urbanization and demands for improved environmental conditions will be emphasized.

Prerequisite: Geography 203 and Geography 201, 204 or 205 or permission. (3-0; 3-0)

**GEOG 351. (1 1/2) Applied Climatology**

A study of the application of physical principles to practical problems in micro-climatology and the reciprocal interaction between climate and man's activities. Discussion topics will include; effects of different surface types on the micro-climate, bioclimatology and agricultural climatology, climatic change, urban climatology and man's intentional and unintentional modification of the climate on both large and small scales. Prerequisite: Geography 302 taken in 1970 or permission. (Not open to students who have taken Geography 302 before 1970-71). Second Term.

Mr. Tuller. (0-0; 2-2)

**GEOG 352. (1 1/2) Biospheric Resources**

The ways in which man's modification of various sectors of the biosphere influence the total ecosystem involved. Specific examples will be chosen from the fields of forest, range, and watershed management; fishing, agriculture and pollution. Prerequisite: Geography 306 or Biology 306. (Not open to students who have taken Geography 306 before 1970-71). Second Term.

Dr. Juncker. (0-0; 2-2)

**GEOG 353. (1 1/2) Hydrologic Resources**

Attention will be paid in this course to the impact of various cultural activities, such as vegetation modification and water transfer projects, upon the hydrology of the areas influenced. The influence of hydrology on cultures will be reviewed, with examples such as flooding and water quality being emphasized. (Not open to students who have taken Geography 320 before 1970-71). Second Term.

Dr. Juncker. (0-0; 2-2)

**GEOG 354. (1 1/2) Lithospheric Resources**

A detailed analysis of the resource aspects of the lithosphere, including mineral genesis and distribution, fluvial and marine processes, accelerated soil erosion and

mass movement phenomena. Special emphasis is placed upon the modification by man of such physical subcycles.

Prerequisite: Geography 412 or permission. (Not open to students who have taken Geography 412 before 1970-71). Second Term.

Dr. Foster.

(0-0; 2-2)

**GEOG 401. (1 1/2) Advanced Cartography**

This course is intended to add to the cartographic skills and knowledge taught in Geography 300. The course includes advanced techniques, such as scribing photo-mechanical work, the mathematical analysis of map projections, and advanced work in aerial photography. Field trips may include visits to governmental mapping agencies.

Prerequisite: Geography 300. First Term.

Mr. Newsom.

(2-2; 0-0)

**GEOG 402. (3) Quantitative Methods in Geography**

Selected quantitative techniques and their application to areal analysis and specific geographic problems.

(1-2; 1-2)

**GEOG 403. (1 1/2) Automated Cartography**

This course is intended to acquaint the student with possible graphic applications of computers to the field of geography. It includes an investigation of existing hardware-software combinations, the use of existing packaged programmes, and the writing of new programmes. Special emphasis is placed upon the construction of maps and diagrams using the two media available at the Computing Centre: the system printer and an ink-line plotter. Prerequisite: Mathematics 170 or equivalent. (Not open to students who have taken Geography 401 before 1970-71). Second Term.

Mr. Newsom.

(0-0; 2-2)

**GEOG 408. (3) (R) Geography of Europe**

A systematic study of the economic, social and political patterns and processes which characterize Europe. Particular emphasis will be given to the themes of urbanization, industrialization and regional differentiation. Throughout, Europe will be considered as a living laboratory for testing contemporary geographic concepts.

(3-0; 3-0)

**GEOG 410. (3) (R) Geography of Western Canada**

A study of the resources and regional development in the four western provinces with emphasis on the more developed parts. Particular attention will be given to problems in the forest industry of British Columbia; the use of water for power and irrigation in Western Canada; the competition for use of land by forestry, grazing and cultivation; and diversification of agriculture on the Prairies. Comparisons will be made between British Columbia and the Prairie provinces with respect to: the historical development of settlement; the variety and availability of mineral resources; manufacturing and urban development.

(3-0; 3-0)

**GEOG 412. (1 1/2) Geomorphology**

An analysis of the distribution and genesis of landforms. Aspects of landscape evolution such as fluvial processes and mass movement will be emphasized.

Prerequisite: Geography 203 or permission. First Term.

Dr. Foster.

(2-2; 0-0)

**GEOG 440. (1 1/2) Seminar on Urban Geography of Canada**

Canadian cities are studied both as a group and individually. At the group level the processes of urbanization, urban growth and economic development as well as the characteristics of size, spacing and central place relationships are investigated. Individual cities are treated as urban laboratories in which theoretical aspects of urban studies can be applied. Census data will be relied upon as major sources of information available on a uniform basis. This will facilitate comparative studies of cities. An important goal of the course is to explore fully the elements of urban structure and dynamic functions of a city. Prerequisite: Geography 305 or permission.

First Term.

Dr. Forward.

(0-0-3; 0-0-0)

GEOG 441. (3) **Seminar in Physical Geography** (0-0-3; 0-0-3)

GEOG 442. (3) **Seminar in Human Geography** (0-0-3; 0-0-3)

GEOG 444. (1½) **Urban Transportation and Land Use**

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: Geography 305 or permission. Second Term.

Dr. Porteous. (0-0; 3-0)

GEOG 445. (3) **The History and Nature of Geography**

Geography from ancient times to the present; the most important geographers and an assessment of their contributions; significant contemporary geographic concepts and developments.

Dr. Farrell. (0-0-3; 0-0-3)

GEOG 446. (1½) **Regional Development and Planning**

The role of resources, transportation and urban systems in regional development. The role of government investments, services and regulation on spatial patterns of development will be examined. Case studies drawn principally from western Canada will be used to illustrate various concepts. Assignments will involve outside readings and a term paper. Prerequisite: Geography 305 or 350 or permission. First Term. (3-0; 0-0)

GEOG 447. (1½) **Urbanization in Developing Countries**

The purpose of the course is to examine the fundamental differences between urban organization in the developed and developing world; to study the historic, cultural and socio-economic conditions under which cities in the developing world are growing; and to test the applicability of theories which were founded on studies of western cities. Prerequisite: Geography 305 or permission. Second Term.

Dr. Lai. (0-0; 3-0)

GEOG 450. (3) **Decision-Making in Resources Management**

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. The first part of the course is devoted to a review of various approaches to the analysis of resource management decisions. The second part of the course deals with a number of case studies from different parts of the world, applying methodologies developed in the first part of the course, and comparing the impacts on the human and physical landscapes. Prerequisite: Geography 350 or permission.

Dr. Sewell. (3-0; 3-0)

GEOG 451. (3) **Geography of Water Resources**

A study of man's influence on hydrologic systems and the influence of such systems upon areal aspects of human activities. Topics will be drawn from the following problems: irrigation, urban water supply, floods, water quality, recreation, weather and climate modification, large scale water transfers and storage, and the contribution of water development to economic and social change. Prerequisites: Geography 350, 311 or permission.

Dr. Sewell. (3-0; 3-0)

GEOG 461. (3) (R) **Geography of the Western United States**

An introduction to the regional character of the American West. Discussions of such matters as mining, irrigation and urban development will be focussed on the mutual relations of the region's resources, its economic and cultural development and the vital role of transportation. Special attention will be given to changing perceptions of the region's nature, especially as shown in fictional and autobiographical accounts. (3-0; 3-0)

**GEOG 464. (3) (R) Geography of China**

A detailed analysis of the physical and cultural landscapes of China, followed by an intensive study of certain regions. Emphasis will be placed on geographic aspects of contemporary socio-economic and political conditions in Mainland China within the framework of the East Asian Communist bloc. The course will also discuss the technique of research and study methods of less advanced countries where statistical information is lacking, incomplete, inaccurate or unavailable.

Dr. Lai.

(3-0; 3-0)

**GEOG 465. (3) (R) Geography of Japan**

An intensive survey of the physical and cultural patterns, resources, land use, agriculture, industry and economic development of Japan. Special consideration will be given to the geographic aspects of population pressure, resource management and conservation, historical phases of industrialization, and the major geographic regions of Japan.

Dr. Yamaguchi.

(3-0; 3-0)

**GEOG 466. (3) (R) Geography of Australia**

A systematic and regional study of the geography of Australia. The country will be viewed in the overall framework of the Pacific Basin. As well as an analysis of the fundamental character of the area, attention will be paid to the geographic implications of problems such as natural resource development, transportation, isolation, limited consumer markets and attempts to foster manufacturing industry.

(3-0; 3-0)

**GEOG 467. (3) (R) Geography of New Zealand and Oceania**

The geographic study of New Zealand and the major groups of the Oceanic Pacific area (Polynesia, Melanesia and Micronesia). The area will be viewed in context within the overall framework of the Pacific Basin. As well as an analysis of the fundamental character of the area, attention will be paid to the geographic implications of problems such as alien cultural contact, restricted markets, limited resources, isolation and political and economic development.

Dr. Farrell.

(3-0; 3-0)

**GEOG 490. (1-3) 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.

(0-0; 0-0)

**GEOG 499. (3) Honours Seminar and Essay**

Honours students attend the seminar during Third and Fourth years and submit the essay at the end of the Fourth year.

## **GEOLOGY**

**GEOL 200. (3) General Geology**

Physical and historical geology. Origin and structure of the earth, materials of the earth, diastrophism, erosion, landforms, mineral deposits, history of the earth and the development of life.

(2-2; 2-2)

## **GRADUATE COURSES**

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

**GEOG 500 (1 ½) Graduate Colloquium in Geography**

**GEOG 501. (3) Graduate Seminar in Physical Geography**

**GEOG 502. (3) Graduate Seminar in Human Geography**

**GEOG 503. (3) Graduate Seminar in Regional Geography**

**GEOG 504. (3) Graduate Seminar in the History and Nature of Geography**

- GEOG 505. (1-6) **Directed Studies in Geography**
- GEOG 506. (1½) **Field Course in Geography**
- GEOG 540. (3) **Graduate Seminar in Urban Problems**
- GEOG 550. (3) **Graduate Seminar in Resources**
- GEOG 561. (3) **Graduate Seminar in Research Problems in the Geography of British Columbia**
- GEOG 599. (credit to be determined) **M.A. Thesis**
- GEOG 699. (credit to be determined) **Ph.D. Dissertation**

# DEPARTMENT OF GERMANIC LANGUAGES AND LITERATURE

J. Beattie MacLean, B.A. (*Brit. Col.*), M.A., Ph.D. (*Wash.*), Professor and Head of the Department.  
Herta M. Hartmanshenn, Ph.D. (*Marburg*), Associate Professor.  
Rosemary Picozzi, B.A. (*Reading*), Ph.D. (*Brit. Col.*), Assistant Professor.  
Walter E. Riedel, B.Ed., M.A. (*Alta.*), Ph.D. (*McGill*), Assistant Professor.  
Rodney T. K. Symington, B.A. (*Leeds*), Ph.D. (*McGill*), Assistant Professor.  
Carol Wootton, B.A. (*U. of Vic.*), A.R.C.T. (*Tor.*), L.R.S.M. (*London*), Lecturer.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

NOTE: All students planning to take a concentration in a General Programme or Major or Honours in the Department of Germanic Languages and Literature must take English 200 and Linguistics 100.

Students wishing to take Third and Fourth Year courses to meet requirements for a B.A. degree on the general, major or honours programme, must satisfy the Department that they have satisfactory standing in appropriate courses at the 200 level. The course numbered 302 should be taken normally in the Third Year.

An Honours programme in the Department of Germanic Languages and Literature normally requires a total of 66 units over a four-year period.

Students specializing in German (including Honours), will find that they have sufficient electives to enable them to concentrate in a second field—for example, 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 Head will be happy to assist students with their selection of courses.

## PROGRAMMES IN GERMAN

General—German 100 or 140 (or equivalent); German 260 and 290 (or equivalent); nine units of German courses chosen from 302 and those numbered 400 or above.

Major—German 100 or 140 (or equivalent); German 260 and German 290 (or equivalent); German 302, 410, and at least nine units of courses numbered 400 or above. German 404 is recommended.

Honours—German 100 or 140 (or equivalent); German 260 and German 290 (or equivalent); German 302, 410 and at least twelve units of courses numbered 400 or above. German 404 is recommended.

## COURSES OFFERED

Students from secondary schools with credit from German IX, X, XI (Beginners), will register for German 140; from German XI (third year, with a grade of "B" or better), German XII, or German 90, will register for German 240, or 260/290; from German 110/120 (with a grade of "B" or better) for 300-400 courses.

First Year students fluent in German who wish to enrol in a German course will be required to register for German 240, 260, 290 or 302; or for a course numbered 400 or above dependent upon ability; those in Second Year will register for a course numbered 400 or above.

### GERM 100. (3) **Beginners' German**

Essential grammar, spoken and written drill; elementary readings in German prose; selected poetry. (For students who have had no German studies.)

Texts: Kurtz and Politzer, *German* (rev. ed.); Haagboldt, *Allerlei*.

Members of the Department.

(3-2; 3-2)

**GERM 140. (3) Elementary German**

Survey of grammar; readings in German literature; spoken and written drill. (For students who have completed one or two years of German in secondary school, and for students whose standing in Beginners' German is unsatisfactory for admission to a higher course).

Texts: Kurtz and Politzer, *German* (rev. ed.); von Hofe, *Die Mittelstufe*.

Members of the Department. (4-1; 4-1)

**GERM 240. (3) Intermediate German**

Literary reading, grammar and composition (Normally intended as a terminal course in German).

Texts: MacLean, Kreigel, Hartmanshenn, *2000 Jahre deutsches Leben*; Fleissner & Fleissner, *Deutsches Literaturlesebuch*; Russon, *Complete German Course*.

Members of the Department. (3-1; 3-1)

**GERM 260. (3) Introduction to German Literature**

Literary readings; grammar and composition (Open to students with a high standing in German 100 or 140, or equivalent).

Texts: Richmond & Kirby, *Auslese*; Röseler, *German in Review* (4th edn.); Frisch, *Biedermann und die Brandstifter*; Dürrenmatt, *Der Besuch der alten Dame*.

Dr. Riedel. (3-1; 3-1)

**GERM 290. (3) Intermediate written and spoken German**

(Open to students with a high standing in German 100 or 140, or equivalent.)

Texts: Müller, *Deutsch (Erstes Buch)*; Steinhauer, *Kulturlesebuch für Anfänger* (rev. ed.).

Dr. Picozzi. (3-1; 3-1)

**GERM 295. (3) German Literature and Music**

A study of the close relationship between German literature and music. The course will illustrate the twin themes of literature in music and music in literature. Texts which have musical settings and compositions which appear in literary works will be discussed. This course is designed to provide a general cultural background for students interested in more than one field. A knowledge of German, or musical training is not required, although General, Major, or Honour's students of German should do the reading in the original German.

Prerequisite: Open to any of the following groups of students:

- (a) Any student who has successfully completed first year English.
- (b) Any student enrolled in the Department of Music, Faculty of Fine Arts.
- (c) General, Major or Honour students of German by permission of the Department, as an elective.

Miss Wootton. (3-0; 3-0)

**GERM 302. (3) Advanced Composition and Stylistics**

Intensive training in oral and written composition, style analysis and discussions.

Texts: Lederer Neuse, *Kleines Aufsatzbuch*; Steinhauer, Harry, *Stilvolles Deutsch*.

Dr. Hartmanshenn. (3-1; 3-1)

**GERM 310. (3) German Literature in English Translation**

A study of major authors from the 18th Century to the present day. (Prerequisite: English 100, or English 120.)

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: G. E. Lessing, *Nathan the Wise*; J. W. Goethe, *Great Writings of Goethe*; Eric Bentley, ed. *The Classical Theatre*, Vol. II, (*Egmont, Mary Stuart, Don Carlos, Penthesilea, Prince of Homburg*); G. Büchner, *Complete Plays and Prose*; Spender, ed. *Great German Short Stories*; G. Hauptmann, *Three Plays*; T. Mann, *Death in Venice & others*; F. Kafka, *Stories*; H. Hesse, *Siddartha*; G. Kaiser, *Gas I and II*; B. Brecht, *The Life of Galileo*; M. Frisch, *The Fire Raisers*; F. Dürrenmatt, *The Visit*.

Dr. Symington. (3-0; 3-0)

GERM 390 (formerly 190). (3) **German Grammar and 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 3rd or 4th year or in graduate studies. (Credit cannot be granted both for German 100 [or 140] and 390).

Texts: Greenfield, *German Grammar*; MacLean, Kriegel, Hartmanshenn, *2000 Jahre deutsches Leben*; Additional reading material on physics, astronomy, ecology, history, linguistics, anthropology, philosophy, sociology, psychology will be provided by the Department.

Dr. Hartmanshenn. (3-0; 3-0)

GERM 400. (3) **Nineteenth-Century German Literature**

(Emphasis on the Drama.)

Representative works of Kleist, Grabbe, Büchner, Grillparzer, Nestroy, Heibel, Hauptmann, Fontane and Raabe. (3-0; 3-0)

GERM 401. (3) **Modern German Literature (1880-1945)**

Representative works of Hauptmann, Schnitzler, Hofmannsthal, George, Rilke, Hesse, Wedekind, Kaiser, Toller, Werfel, T. Mann, Bergengruen, Kafka, Brecht.

Dr. Riedel. (3-0; 3-0)

GERM 402. (3) **Contemporary German Literature (1945 to the present)**

Texts: Representative works of Brecht, Borchert, Frisch, Dürrenmatt, Kipphardt, Hochhut, Hochwälder, Zuckmayer, Hacks, Grass, Böll, U. Johnson, Eich, Schnurre, Dorst, Weiss, Kramp, and others.

(Not offered in 1970-71.) (3-0; 3-0)

GERM 404. (3) **The Romantic Movement**

A study of prose and poetry of the period. Attention will also be given to the historic, social, artistic, religious and philosophical background.

Texts: Stenzel, *Die deutschen Romantiker* (Vols. I and II). Additional works will be announced.

(Not offered 1970-71.) (3-0; 3-0)

GERM 408. (3) **German Poetry from 1830 to the Present**

Studies in Realism, Naturalism, Impressionism, Expressionism, and contemporary trends in German poetry.

Texts: Echtermeyer and von Wiesc, *Deutsche Gedichte*. Supplementary reading from the *Penguin Book of German Verse and Twentieth-Century German Verse* (Penguin Edn.).

(Not offered in 1970-71.) (3-0; 3-0)

GERM 410. (3) **The Classical Period**

Literature of the eighteenth and early nineteenth century with emphasis on the drama of Lessing, Schiller and Goethe.

Texts: Lessing, *Nathan der Weise*; Schiller, *Gedichte*; Schiller, *Die Jungfrau von Orleans*; Boyd, *Goethe's Poems*; Goethe, *Faust I und Auswahl aus Teil II*; Goethe, *Hermann und Dorothea*; Goethe, *Aus meinem Leben*; Friedenthal, *Goethe, sein Leben und seine Zeit*.

Dr. Hartmanshenn. (3-0; 3-0)

GERM 412. (3) **Baroque to Sturm und Drang**

Readings from works of the Baroque period, the Era of Enlightenment and the pre-romantic Storm and Stress movement.

Texts: H. Cysarz (ed.), *Deutsche Barocklyrik*; Gryphius, *Catharina von Georgien*; Lohenstein, *Cleopatra*; Grimmelshausen, *Der abenteuerliche Simplicissimus* (Auswahl); Lessing, *Kritik und Dramaturgie*; Lessing, *Emilia Galotti*; Lenz, *Der Hofmeister*; Doerksen, *Sturm und Drang*.

Dr. Picozzi. (3-0; 3-0)

GERM 417. (3) **The German Novelle**

A study of the development of the German Novelle from Goethe to the present day.

Texts: To be announced.

Dr. MacLean. (3-0; 3-0)

GERM 430. (3) **Directed Reading Course**

(By permission, for Honours or Major students.) (3-0; 3-0)

GERM 490. (3) **Honours Seminar**

(The Seminar may include a graduating essay.) (3-0; 3-0)

# DEPARTMENT OF HISPANIC AND ITALIAN STUDIES

Pablo Cabañas, Licenciado, Doctor en Filosofía y Letras (*Madrid*), Professor and Head of the Department.

Jerrold L. Mordaunt, B.A., M.A. (*Utah*), Ph.D. (*Stanford*), Assistant Professor (Spanish). (Leave of absence 1970-71).

Gerald T. Aaron, B.A. (*Brigham Young*), M.A. (*Brit. Col.*), Visiting Lecturer (Spanish).

Miss Gillian M. Briggs, B.A. (*London*), Lecturer (Spanish).

Ross E. Butler, Jr., B.A., M.A. (*Oregon*), Lecturer (Spanish). (Leave of absence 1970-71).

Miss María Esformes, B.A. (*Portland State*), M.A. (*Wash.*), Lecturer (Spanish).

Robert M. Flores, B.A., M.A. (*Oregon*), Lecturer (Spanish).

David F. Henn, B.A., M.A. (*Durham*), Lecturer (Spanish).

David C. McDougall, B.A., M.A. (*Sheffield*), Lecturer (Spanish).

Lucio C. Marampon, B.A., M.A. (*Brit. Col.*), Lecturer (Italian).

Cecil W. Miles, Ph.D. (*Bogotá*), <sup>Visiting</sup>Part-time Lecturer (Spanish).

Miss Caroline Monahan, B.A., M.A. (*Brit. Col.*), Lecturer (Spanish). (Leave of absence 1970-71).

## GENERAL, MAJOR AND HONOURS PROGRAMMES

NOTE: All students planning to take a concentration in a general programme or Majors or Honours in the Department of Hispanic and Italian Studies must take English 200 and Linguistics 100.

Students wishing to take courses in Spanish at the Third and Fourth Year level are reminded that they must have the prerequisites of the first two years, including Spanish 290.

Students wishing to take Third and Fourth Year courses to meet requirements for a B.A. degree on the General, Major or Honours Programme, must satisfy the Department that they have satisfactory standing in appropriate courses at the 200 level. Spanish 290 should be taken in the Second Year and Spanish 302 in the Third Year. Students doing a General or Major in Spanish may take Spanish 260 in either the Second or Third Year.

An Honours programme in the Department of Hispanic and Italian Studies normally requires a total of 66 units over a four-year period.

Students specializing in Spanish (including Honours), will find that they have sufficient electives to enable them to concentrate in a second field—for example, 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 Head will be happy to assist students with their selection of courses.

## PROGRAMMES IN SPANISH

General—First Year: Spanish 100; Second Year: Spanish 260 and 290; Third and Fourth Years: Spanish 302 and six units of Spanish courses numbered 400 or above.

Major—First Year: Spanish 100; Second Year: Spanish 260 and 290; Third and Fourth Years: Spanish 302 and twelve units in Spanish courses numbered 400 or higher.

Honours—First Year: Spanish 100; Second Year: Spanish 260 and 290; Third and Fourth Years: Spanish 302 and at least fifteen units of courses numbered 400 or higher.

## COURSES OFFERED

### SPANISH

#### SPAN 100. (3) **Beginners' Spanish**

Intensive oral method with grammar, composition, translation, and work in the language laboratory.

Texts: Zenia Sacks da Silva, *Beginning Spanish*, 2nd ed. and Tape Manual; supplementary reading material to be announced.

Members of the Department. (3-2; 3-2)

#### SPAN 240. (3) **Intermediate Spanish**

(Normally intended as a terminal course in Spanish). Intensive review of grammar; translation, composition, oral work.

Texts: Da Silva and Lovett, *A Concept Approach to Spanish*, 2nd ed.

Members of the Department. (3-1; 3-1)

#### SPAN 260. (3) **Introduction to the Literature of Spain and Spanish America**

(For students who intend to do major or honours work in Spanish. May also be taken as an elective.)

Study of modern authors, composition, and assigned themes.

Texts: García Lorca, *Bodas de Sangre*; Güiraldes, *Don Segundo Sombra*; Blecua, *Floresta de Lirica Española*; Blasco Ibáñez, *La Barraca*.

Miss Briggs. (4-0; 4-0)

#### SPAN 290. (3) **Review Grammar and Conversation**

(For students who intend to do major or honours work in Spanish). This course should be taken in the Second Year. May also be taken as an elective.

Intensive review of grammar. Detailed study of the Spanish language.

Texts: To be announced.

Mr. McDougall. (3-0; 3-0)

#### SPAN 302. (3) **Advanced Composition and Stylistics**

Intensive training in oral and written composition.

Text: Eoff and Ramírez, *Composición-Conversación*. Other text to be announced.

Miss Esformes. (4-0; 4-0)

#### SPAN 400. (3) **The Spanish Realist Novel of the Nineteenth Century**

Development of the Spanish novel from Romanticism to the end of the Nineteenth Century.

(Not offered in 1970-71). (3-0; 3-0)

#### SPAN 401. (3) **The Generation of 1898**

A study of Spanish authors who sought a solution to the problems of Spain which followed the Spanish-American War.

Students will be required to write essays on the prescribed texts.

Texts: Unamuno, *En torno al casticismo*, *Andanzas y visiones españolas*, *San Manuel Bueno, Mártir*; Azorín, *Vision de España*; Baroja, *El Mayorazgo de Labraz*, *El árbol de la ciencia*; Antonio Machado, *Poesías completas*.

Dr. Cabañas. (3-0; 3-0)

#### SPAN 402. (3) **Cervantes**

The life and works of Cervantes, with emphasis on *Don Quijote* and selected *Novelas ejemplares*.

Texts: Miguel de Cervantes, *Don Quijote de la Mancha*; Vicente Llorens, ed., *Cervantes; Three Exemplary Novels*.

Mr. Flores. (3-0; 3-0)

#### SPAN 403. (3) **Introduction to the Golden Age**

Spanish literature of the sixteenth and seventeenth centuries, with the exception of the novel.

(Not offered in 1970-71). (3-0; 3-0)

SPAN 404. (3) **The Literature of Spanish America**

An introduction to the modern literature of Spanish America, with selected texts. Students will be required to write essays on the prescribed texts.

Texts: Azuela, *Los de Abajo*; Asturias, *El Señor Presidente*; Gallegos, *Doña Bárbara*; Quiroga, *Cuentos Escogidos*; Neruda, *Veinte poemas de amor y una canción desesperada*, *Residencia en la Tierra*; Hernández, *Martin Fierro*; Darío, *Poesías Escogidas*.

Miss Briggs. (3-0; 3-0)

SPAN 405. (3) **The Golden Age Novel, Excepting Cervantes**

Development of the Spanish novel from the beginning of the sixteenth century to the end of the seventeenth century.

(Not offered in 1970-71). (3-0; 3-0)

SPAN 406. (3) **Medieval Literature**

Study of Spanish language and literature from 1140 to 1500.

(May not be offered in 1970-71). (3-0; 3-0)

SPAN 410. (3) **Spanish Literature, 1700-1898**

Main currents of the eighteenth and nineteenth centuries: Neo-Classicism, Romanticism, Realism.

Students will be required to write essays on the prescribed texts.

Texts: Meléndez Valdés, *Poesías*; Moratín, *La comedia nueva*, *El sí de las niñas*; Espronceda, *Poesías*, *El estudiante de Salamanca*; Zorilla, *Don Juan Tenorio*; Galdós, *Fortunata y Jacinta*.

Dr. Cabañas. (3-0; 3-0)

SPAN 412. (3) **Twentieth Century Spanish Literature**

A study of the main trends in 20th century Poetry, Drama and Prose with particular reference to texts detailed below.

Students will be required to write essays on the prescribed texts.

Texts: Jiménez, *Segundo antología poética*; Guillén, *Cántico*; Salinas, *La voz a ti debida*; García Lorca, *Romancero gitano*, *La casa de Bernarda Alba*; Valle-Inclán, *Sonata de primavera*, *Sonata de estío*, *Luces de Bohemia*, *Romance de lobos*; Pérez de Ayala, *Belarmino y Apolonio*; Cela, *La colmena*.

Mr. Henn. (3-0; 3-0)

SPAN 425. (3) **History of the Spanish Language**

A study of the development of the Spanish Language from its beginnings to the present day.

Prerequisite: 200 level in Spanish, including Spanish 290.

Texts: To be announced.

Mr. McDougall. (3-0; 3-0)

SPAN 430. (3) **Directed Reading Course**

For honours and major students. Emphasis on fifteenth and sixteenth century poetry. Required reading: the *Romancero* and the main works of Santillana, Manrique, Mena, Garcilaso, Fray Luis de León, Fernando de Herrera, etc.

(Not offered in 1970-71). (3-0; 3-0)

SPAN 490. (3) **Honours Seminar, or Graduating Essay**

(Not offered in 1970-71). (3-0; 3-0)

**PORTUGUESE**

PORT 100 (3) **First Year Portuguese**

Intensive oral method with grammar, composition, translation and work in the Language Laboratory.

(Not offered in 1970-71). (3-2; 3-2)

## ITALIAN

### ITAL 100. (3) **First Year Italian**

Introduction to the language with conversation, grammar, and reading exercises.

Texts: To be announced.

Mr. Marampon.

(4-1; 4-1)

### ITAL 200. (3) **Second Year Italian**

Review of grammatical exercises; reading of contemporary Italian authors; conversation exercises.

Texts: To be announced.

Mr. Marampon.

(3-1; 3-1)

### ITAL 300. (3) **A cultural approach to Italian language and literature**

This course is designed primarily for third and fourth year students majoring in Classics, English, Fine Arts, History, Modern Languages, etc. The course will be given in English during the first term and in Italian in the second .

Prerequisites: Competence to the 200-level in a second language other than Italian. Grammar, reading and discussion of exemplary Italian authors.

Texts: Young and Cantarella, *Corso d'Italiano*; Moravia, *Racconti Romani*; Penguin Book, *Italian Verse*; Dante, *Divina Commedia*.

Mr. Marampon.

(3-0; 3-0)

### ITAL 302. (3) **Advanced Composition and Stylistics**

Intensive training in oral and written composition.

Texts: Young and Cantarella, *Corso d'Italiano*.

(3-0; 3-0)

### ITAL 403. (3) **Introduction to Renaissance Literature (formerly Italian 430)**

Renaissance literature with emphasis on Dante, Petrarca, Boccaccio, Macchiavelli, Castiglione, etc.

Prerequisite: *Second year Italian*.

Texts: Flora, *Storia della Letteratura Italiana*.

(3-0; 3-0)

## DEPARTMENT OF HISTORY

- James E. Hendrickson, B.A. (*Sask.*), B.Ed. (*Alta.*), M.A., Ph.D. (*Oregon*), Associate Professor and Head of the Department.
- Sydney W. Jackman, Ph.D. (*Harvard*), F.S.A., F.R.Hist.S., Professor. (Leave of absence 1970-71).
- Sydney G. Pettit, M.A. (*Brit. Col.*), Professor.
- Alfred E. Loft, B.A. (*Brit. Col.*), Associate Professor.
- Reginald H. Roy, C.D., M.A. (*Brit. Col.*), Ph.D. (*Wash.*), F.R.Hist.S., Associate Professor of Military History and Strategic Studies.
- W. George Shelton, M.A. (*Man.*), Ph.D. (*Penn.*), Associate Professor.
- Miss Charlotte S. M. Girard, B.A. (*Brit. Col.*), M.A., Ph.D. (*Bryn Mawr*), Assistant Professor.
- Jan Kupp, Ph.D. (*Man.*), Assistant Professor.
- William M. Leary, Ph.D. (*Princeton*), Assistant Professor.
- Robert J. McCue, B.A., B.Ed. (*Alta.*), M.A., Ph.D. (*Brigham Young*), Assistant Professor.
- John Money, B.A., Ph.D. (*Cantab.*), Assistant Professor.
- Miss Patricia E. Roy, B.A. (*Brit. Col.*), M.A. (*Tor.*), Ph.D. (*Brit. Col.*), Assistant Professor.
- David A. T. Stafford, B.A. (*Cantab.*), Ph.D. (*L.S.E.*), Assistant Professor.
- Charles W. Cowan, B.A. (*Alta.*), Lecturer.
- Kenneth C. Dewar, B.A. (*Alta.*), M.A. (*Tor.*), Lecturer.
- Brian W. Dippie, B.A. (*Alta.*), M.A. (*Wyoming*), Lecturer.
- Ernest R. Forbes, B.A. (*Mt. Allison*), M.A. (*Dalhousie*), Lecturer.
- Christopher Rowe, B.A. (*Liverpool*), Lecturer.
- Donald L. Senese, A.B. (*Harvard*), Lecturer.
- Wesley T. Wooley, A.B. (*Ill.*), A.M. (*Chicago*), Lecturer.
- Mrs. Stella Higgins, B.A. (*U. of Vic.*), Part-time Lecturer.
- Brian Smith, M.A. (*Queen's*), LL.B. (*Brit. Col.*), Part-time Lecturer.

### GRADUATE PROGRAMME

The Department offers opportunities for study and research leading to the M.A. degree. For further information about the Graduate Programme, see the section of this calendar dealing with the Faculty of Graduate Studies, and consult the departmental Graduate advisor.

### UNDERGRADUATE PROGRAMMES

The Department offers undergraduate course work at two levels: introductory courses at the 200 level, open to first and second year students; and advanced courses at the 300 and 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 enrol in introductory courses after completing an advanced course in the same area; students may not enrol concurrently in introductory and advanced courses in the same area without written permission from the instructor in the advanced course.

All history courses require substantial written and reading assignments. Information about textbooks in all courses is available from the bookstore.

#### GENERAL

The General Programme consists of any 9 units of history courses numbered 300 and above in the third and fourth years. Students entering the General Programme should normally complete 6 units of introductory history courses in the first and second years.

## MAJOR

To be admitted to the Major Programme, a student should have a C average in 6 units of introductory history courses. In his third and fourth year, the student must take a minimum of 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 non-history courses must be selected in consultation with the departmental 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 programmes approved by the Majors adviser.

## HONOURS

The Honours Programme is designed to permit students of proven ability to study history more intensively than is possible in the Major and General Programmes. Students who are particularly interested in history or who are contemplating graduate study are strongly advised to consider enrolling in the Honours Programme. The Honours Programme involves a larger number of courses than a Major, including specialized seminars in methodology and historiography (History 491 and 492) and the preparation of a graduating essay under the direction of an individual tutor (History 498 and 499). Because the student does more of his work in seminars and under the supervision of a tutor, there are greater opportunities for individual attention than is possible in the Major and General Programmes.

The Honours Programme normally consists of 36 units of course work in the combined third and fourth year as follows:

Third Year		Fourth Year	
History 491	1½ units	History 498	3 units
History 492	1½ units	History 499	6 units
Senior History	9 units	Senior History	3 units
Related non-History	3 units	Related non-History	3 units
Elective	3 units	Elective	3 units

In addition, Honours candidates are required to demonstrate a reading knowledge of a modern language other than English (either by obtaining credit in a language course to the 200 level, or by passing a special examination) and to defend their graduating essay in an oral examination.

Admission to the Honours Programme requires a high second-class standing in 6 units of introductory history courses. Applicants should apply in person to the adviser to Honours students, normally before the last day of lectures in the spring term of their second year. Successful candidates will be notified by mail not later than July 1 of their acceptance as Honours candidates.

Honours candidates are required to have their programme approved by the Honours adviser. Candidates whose performance is unsatisfactory may be required at any time to transfer from the Honours to the Major Programme. Admission to the fourth year of the Honours Programme is conditional upon satisfactory performance in the third year.

## COURSES OFFERED

### INTRODUCTORY COURSES

#### HIST 205. (3) **Introduction to History**

This course is designed to introduce students to the kinds of questions historians ask about the past. The subject matter may vary according to the particular area of specialization of the instructor, and students are advised to consult the Department about the specific topic to be considered in any given year. (3-0; 3-0)

#### HIST 210 (formerly 212). (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.

Mr. Dippie, Dr. Leary, Mr. Wooley. (3-0; 3-0)

HIST 220 (formerly 201). (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.

Mr. Cowan.

(3-0; 3-0)

HIST 230 (formerly 102). (3) **History of Canada**

A survey of Canadian development from the beginnings of the French regime to the present. This course is strongly recommended to students wishing to take advanced courses in Canadian history.

Mr. Dewar, Mr. Forbes, Dr. Kupp, Dr. P. E. Roy, Mr. Loft.

(3-0; 3-0)

HIST 238 (formerly 204). (3) **Medieval Europe**

Europe from the fall of the western Roman Empire to the Renaissance: a study of feudalism, manorialism, the church, and the political and intellectual life that characterized the Middle Ages.

Dr. McCue.

(3-0; 3-0)

HIST 240 (formerly 200). (3) **History of Modern Europe**

A survey of European history from the Renaissance to the twentieth century. This course is recommended to all Majors and Honours candidates and to students wishing a single course in European history. It (or History 238) is strongly recommended to students wishing to take advanced courses in European history.

Mr. Loft, Mr. Senese, Dr. Shelton.

(3-0; 3-0)

HIST 242 (formerly 101). (3) **Main Currents in Twentieth Century History**

This course offers a background for contemporary world problems. Topics include the genesis of the First World War, 1871-1914; the War, 1914-1918; the Settlement, 1919-1929; the breakdown of the Settlement, 1929-1939; the Second World War, 1939-1945; and the Cold War.

Mrs. Higgins, Mr. Loft, Mr. Pettit.

(3-0; 3-0)

HIST 250 (formerly 111). (3) **Europe and a Wider World, 1415-1808**

A survey of the first colonial empires in Asia, America, and Africa; from the Age of Discovery to the colonial American revolutions. This course is strongly recommended to students wishing to take advanced courses in the expansion of Europe.

Mr. Rowe.

(3-0; 3-0)

HIST 252. (3) **History of the Far East**

An introduction to the political, social, economic, and philosophical developments in the Far East, with particular emphasis on China and Japan.

(May not be offered 1970-71).

(3-0; 3-0)

### ADVANCED COURSES

#### American

HIST 301 (formerly 312). (3) **The United States in the Nineteenth Century**

A study of the economic, social, political, and cultural development of the United States from the framing of the Constitution to the Spanish-American War.

Mr. Dippie.

(May not be offered 1970-71).

(3-0; 3-0)

HIST 304 (formerly 412). (3) **The United States in the Twentieth Century**

A study of the personalities and problems of the United States in the twentieth century. The course will emphasize the reform tradition from the Progressive movement to the Great Society. Diplomatic, economic, and social developments will be surveyed.

Dr. Leary.

(3-0; 3-0)

HIST 306. (1½) **American History Since 1945**

A study of American diplomacy, politics, and society since the Second World War. The course will include such topics as Cold War diplomacy, the atomic bomb, the Negro revolt, the post-war economy, the fate of liberal reform, as well as trends in American literature, art, and religion. Fall term only.

Mr. Wooley. (3-0; 0-0)

HIST 308 (formerly 428). (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.

Mr. Dippie. (3-0; 3-0)

HIST 310 (formerly 403). (3) **The American West**

The frontier in American history, the Trans-Mississippi West with emphasis on the Far West.

(May not be offered 1970-71). (3-0; 3-0)

HIST 315 (formerly 430). (3) **American Diplomatic History**

A study of American foreign relations with emphasis on the twentieth century and the history of American diplomatic thought.

Mr. Wooley. (3-0; 3-0)

HIST 319. (1½ or 3) **Seminar in American History**

Selected topics in American history. Open to Honours students and selected Majors with the consent of the instructor. Enrolment restricted to fifteen. Students are advised to consult the Department about the specific topics to be considered. For 1970-71, proposed topics are American relations in the Far East (fall term) and American urban history (spring term).

Dr. Leary, Mr. Wooley. (3-0) or (3-0; 3-0)

**British**

HIST 321 (formerly 318). (3) **England, 1485-1660**

England from Medieval Monarchy to political revolution: an intensive study of English history from the end of the War of Roses to the Civil War, Commonwealth, and Restoration of Charles II.

Dr. Money. (3-0; 3-0)

HIST 323 (formerly 418). (3) **Britain, 1660-1815**

Britain from political to industrial revolution: an intensive study of the roots of political stability and of social change, and of the consequences of their interaction in Britain during the later seventeenth and eighteenth centuries.

Dr. Money. (3-0; 3-0)

HIST 325 (formerly 419). (3) **Britain, 1815-1914**

Great Britain, industry and empire: an intensive study of British history during the nineteenth century. (3-0; 3-0)

HIST 327 (formerly 421). (3) **Twentieth Century Britain**

Britain in the twentieth century — war, labour, and the aftermath of empire. The course will be a combination of lectures and class discussion. Topics to be investigated may vary from year to year, but will always include foreign policy, the rise of the Labour Party, and economic affairs.

Mr. Cowan. (3-0; 3-0)

HIST 338. (1½ or 3) **Seminar in British History**

Selected topics in British history. Open to Honours students and selected Majors with the consent of the instructor. Enrolment restricted to fifteen. Students are advised to consult the Department about the specific topics to be considered.

(May not be offered 1970-71). (3-0) or (3-0; 3-0)

NOTE: History 402 may also be counted as a course in British history.

## Canadian

HIST 340 (formerly 302). (3) **New France**

A study of the history of the French regime in Canada from 1500 to 1763. The course will deal with the economic, social, and political aspects of the history of New France, as well as the forces in New England, France, and Holland that influenced the development of New France.

Dr. Kupp.

(3-0; 3-0)

HIST 342 (formerly 326). (3) **British North America, 1763-1867**

The British colonies in North America from the Peace of Paris to Confederation.

(Not offered 1970-71).

(3-0; 3-0)

HIST 344 (formerly 426). (3) **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 to their political manifestations.

Mr. Forbes.

(3-0; 3-0)

HIST 348. (3) **Social and Intellectual History of Canada**

An examination of major aspects of Canadian social and intellectual life.

(May not be offered 1970-71).

(3-0; 3-0)

HIST 350 (formerly 303). (3) **The Canadian West**

A study of the West within the national context. Particular emphasis will be given to transportation, settlement, and regional discontent.

Dr. P. E. Roy.

(3-0; 3-0)

HIST 352. (3) **French Canada**

A study of social, economic, and political aspects of French Canada's history since 1763.

(3-0; 3-0)

HIST 356 (formerly 420). (3) **Canadian Constitutional History**

A study of the evolution of the Canadian Constitution from 1763 to the present.

Mr. Smith.

(3-0; 3-0)

HIST 358. (1 1/2 or 3) **Selected Topics in Canadian History**

An intensive study of selected aspects of Canadian history. Students are advised to consult the Department for an outline of the topics to be considered.

Mr. Dewar.

(3-0) or (3-0; 3-0)

HIST 359. (1 1/2 or 3) **Seminar in Canadian History**

Selected topics in Canadian history. Open to Honours students and selected Majors with the consent of the instructor. Enrolment restricted to fifteen. Students are advised to consult the Department about the specific topics to be considered. For 1970-71, proposed topics are British Columbia (fall term) and New France (spring term).

Dr. Kupp, Dr. P. E. Roy.

(3-0) or (3-0; 3-0)

NOTE: History 494 may also be counted as a course in Canadian history.

## European

HIST 360 (formerly 313). (3) **The Rise of Modern Europe, 1300-1648**

Europe in the Renaissance and Reformation: a study of the conditions, men, and ideas involved in the intellectual quickening of the Renaissance; and the spiritual upheavals of the Protestant and Roman Catholic reformations.

Dr. McCue.

(3-0; 3-0)

HIST 362 (formerly 314). (3) **Europe, 1648-1815**

Europe from the Peace of Westphalia through the Age of Louis XIV and the Enlightenment, to the French Revolution, Napoleonic Wars, and Battle of Waterloo:

a consideration of the dramatic changes in European civilization between Westphalia and Waterloo.

(May not be offered 1970-71). (3-0; 3-0)

HIST 364 (formerly 415). (3) **Europe in the Nineteenth Century**

The evolution of Europe from 1815 to 1914, with special emphasis on the political, economic, and social thought of the period.

Dr. Shelton. (3-0; 3-0)

HIST 366. (3) **Europe in the Twentieth Century**

An intensive examination of major political, economic, and social trends in Europe in the present century.

Dr. Stafford. (3-0; 3-0)

HIST 368. (3) **Ideas and Events in Modern Europe**

Political and social thought in Europe since the seventeenth century. The emphasis will be on the interaction between thinkers and their times, with the most significant ideas and intellectual movements being examined in their social and political contexts. Although special attention will be given to the origins of twentieth century conceptions of popular sovereignty, nationalism, revolution and the state, other aspects of culture will also be discussed.

(Not offered 1970-71). (3-0; 3-0)

HIST 370 (formerly 406). (3) **France, 1789-1945**

France from the end of the Ancien Régime to the advent of the Fourth Republic, a study in her political, social, cultural, and economic development. The emphasis will be upon the social and cultural aspects of the Third Republic (1870-1945). A reading knowledge of French is desirable but not required.

Dr. Girard. (3-0; 3-0)

HIST 372. (3) **Germany Since 1648**

A study of the main aspects of modern German history, including such topics as the decline of the Holy Roman Empire, Enlightened Despotism, the reshaping of Germany during the Napoleonic era, the development of German liberalism and its divergence from English and French models, the Revolution of 1848, German unification under Bismarck, the Industrial Revolution and Socialism, the origins of the First World War, the Weimar Republic, the Rise and Fall of the Third Reich, and Germany in the post-war era. In addition, some attention will be given to the works of selected literary figures and philosophers.

Dr. Stafford. (3-0; 3-0)

HIST 374 (formerly 317). (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.

Mr. Senese. (3-0; 3-0)

HIST 376 (formerly 417). (1 ½) **The Soviet Union**

A history of the USSR 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. Fall term only.

Mr. Senese. (3-0; 0-0)

HIST 389. (1 ½ or 3) **Seminar in European History**

Selected topics in European history. Open to Honours students and selected Majors with the consent of the instructor. Enrolment restricted to fifteen. Students are advised to consult the Department about the specific topics to be considered. For 1970-71, it is proposed the topic will be Russian revolutionary thought (spring term).

Mr. Senese. (3-0) or (3-0; 3-0)

HIST 390 (formerly 339). (3) **War in the Modern World, 1755 to the Present**  
A survey of war and its impact on society and national policies.  
Dr. R. H. Roy. (3-0; 3-0)

HIST 400. (3) **Intellectual History of Europe**

A study of the major movements of thought from the early Middle Ages to the twentieth century. Lectures and reading assignments are closely integrated. Students are required to sit examinations at Christmas and April. May be taken by students in their second year by permission of instructor.

Mr. Pettit. (3-0; 3-0)

NOTE: Upon written permission from the Head of the Department of History, Classical Studies 330 or 340 may also be counted as a course in European History.

#### Expansion of Europe

HIST 401 (formerly 311). (3) **The Discovery and Settlement of North America**

Colonial North America from the Age of Reconnaissance to the American Revolutions.

(May not be offered 1970-71). (3-0; 3-0)

HIST 402 (formerly 411). (3) **Empire and Commonwealth**

A study of British imperial evolution from the disruption of the First British Empire to the present. (3-0; 3-0)

HIST 405 (formerly 305). (3) **Latin America: The Colonial Period**

The discovery of the New World and rise and fall of the Iberian-American empires.

Mr. Rowe. (3-0; 3-0)

HIST 407. (3) **Latin America Since 1808**

The emergence of the independent republics of Latin America from Bolivar to the present. An inquiry into the revolutionary tradition of modern Latin America with particular emphasis on the struggle for independence, the phenomenon of military dictatorships, and the social changes associated with the Mexican Revolution of 1910 and the age of Fidel Castro. Particular emphasis will be given to events in the twentieth century and to the four republics of Mexico, Brazil, Argentina, and Cuba.

Mr. Rowe. (3-0; 3-0)

HIST 409. (1½) **European Imperialism, 1880-1914**

A study of the last great age of imperialism before its disintegration at the Peace of Versailles. A survey of the economic, political, and strategic myths upon which imperialism depended and of the social and international consequences of the struggle for empire. Spring term only.

Mr. Rowe. (0-0; 3-0)

HIST 413. (3) **Modern China**

An intensive study of developments in China during the nineteenth and twentieth centuries.

(May not be offered 1970-71). (3-0; 3-0)

HIST 414. (3) **Modern Japan**

An intensive study of development in Japan since the Meiji Restoration.

(May not be offered 1970-71). (3-0; 3-0)

HIST 416. (1½ or 3) **Seminar in Expansion of Europe**

Selected topics in the expansion of Europe. Open to Honours students and selected Majors with the consent of the instructor. Enrolment restricted to fifteen. Students are advised to consult the Department about the specific topics to be considered. For 1970-71, it is proposed the topic will be European migration to the New World (fall term).

Mr. Rowe. (3-0) or (3-0; 3-0)

### Specialized Courses

HIST 491 (formerly 333). (1 ½) **Seminar in Methodology**

A study of and practice in the principal bibliographic aids and research tools necessary for the study of history. Various aspects of the methods of history will also be discussed. Required of all students in the Honours Programme. Enrolment limited to fifteen. Fall term only.

Dr. Girard. (3-0; 0-0)

HIST 492 (formerly 433). (1 ½ or 3) **Seminar in Historiography**

This course is designed to introduce students to the history of the writing of history. Enrolment limited to fifteen. One and one-half units required of all students in the Honours Programme. Fall and spring terms.

Dr. Hendrickson. (3-0) or (3-0; 3-0)

HIST 493 (formerly 333). (1 ½) **Seminar in Philosophy of History**

A study of the various interpretations of the meaning and purpose of history. Open to Honours students and selected Majors with the consent of the instructor. Enrolment restricted to fifteen. Spring term only.

Dr. Shelton. (0-0; 3-0)

HIST 494 (formerly 439). (3) **Seminar in Defence Policy**

An intensive study of selected aspects of Canada's role as a middle power. Emphasis will be given to the diplomatic, military, and strategic role of Canada during the twentieth century. Enrolment limited to fifteen. Consent of instructor required.

Dr. R. H. Roy. (3-0; 3-0)

HIST 498. (3) **Honours Tutorial**

Directed readings offered by the instructor supervising a student's graduating essay. Members of the Department.

HIST 499. (6) **Graduating Essay in Honours**

The preparation of a research paper from 75-125 pages in length under the direction of a member of the Department. The essay must conform to acceptable standards of style and format, and is due one week before the final day of lectures. There is, in addition, an oral examination on the field covered in the graduating essay.

Members of the Department.

### GRADUATE COURSES

Students should consult the Department concerning the courses offered in any given year.

HIST 510 (formerly 512). (1 ½) **Seminar in American History**

HIST 520 (formerly 501). (1 ½) **Seminar in British History**

HIST 530 (formerly 526). (1 ½) **Seminar in Canadian History**

HIST 531 (formerly 503). (1 ½) **Seminar in Western Canadian History**

HIST 532 (formerly 539). (1 ½ or 3) **Seminar in Canadian Defence Policy**

HIST 540 (formerly 505). (1 ½) **Seminar in European History**

HIST 580. (1 ½) **Seminar in Specialized Topics**

HIST 582. (1 ½) **Seminar in Historiography**

HIST 584. (1 ½) **Seminar in Intellectual History**

HIST 585. (1 ½) **Seminar in Diplomatic History**

HIST 590. (1 ½ or 3) **Directed Reading**

HIST 599. (Credit to be determined, but normally 6 units) **M.A. Thesis**

All candidates who have completed most of their research and are ready to write a thesis are required to submit a portion of their work in a seminar for thesis writers in which their supervisor and other participants in the seminar will have an opportunity to comment upon their work.

# DEPARTMENT OF LINGUISTICS

Jean-Paul Vinay, L. ès L. (*Paris*), D.E.S. (*Paris*), M.A. (*London*), Agrégé de l'Université de France, Officier d'Académie, F.R.C.S., Professor, and Head of the Department.

M. H. Scargill, B.A., Ph.D. (*Leeds*), Professor.

G. N. O'Grady, B.A. (*Univ. of Sydney*), Ph.D. (*Indiana*), Associate Professor.

T. M. Hess, B.A. (*Colo.*), M.A., Ph.D. (*Wash.*), Assistant Professor.

J. E. Hoard, B.A., M.A., Ph.D. (*Wash.*), Assistant Professor.

J. F. Kess, B.Sc. (*Georgetown*), M.A., Ph.D. (*Hawaii*), Assistant Professor.

H. J. Warkentyne, B.A. (*West Ont.*), M.A., Ph.D. (*London*), Assistant Professor.

NOTE: Unless otherwise stated, the prerequisite for any course in Linguistics is some knowledge of a language other than English, or permission of the Department.

## INDIVIDUAL COURSES

Students who wish to take just one or two courses in Linguistics, rather than a full programme, may be interested in the following courses. Linguistics 100 is a course of general interest at the first-year level. Linguistics 360 is a senior Linguistics course of general interest, although it is of special value to students in Classical and Modern Languages. Linguistics 390 is intended for students who have a particular interest in the English language. Linguistics 340, 361 and 400 should be of interest to students in Anthropology who wish to have some training in the techniques of analysing and recording languages they may meet in the field. Linguistics 100, 250, 420 and 480 should be of interest to students in Classical and Modern Languages. 481 should be of interest to mathematicians. Linguistics 250 is of special concern to students with an interest in phonetics and the sounds of language in general.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

General — Students who wish to proceed to the B.A. degree under the regulations for the General Programme and who wish to study Linguistics as one of their fields of concentration are urged to take one of the following as their second field of concentration: Anthropology, Classical or Modern Languages, English, Mathematics, Psychology.

Students who begin the study of Linguistics as one of their fields in the General Programme in their first or second year should take Linguistics 100, and then at least three senior courses in Linguistics in their third and fourth years.

Students who begin the study of Linguistics as one of their fields in the General Programme in their third or fourth years should take Linguistics 360 or 361 and at least two other senior courses in Linguistics.

Major — Students who wish to proceed to the B.A. degree with a Major in Linguistics are urged to offer supporting courses in one of Anthropology, Classical or Modern Languages, English, Mathematics, Psychology.

Students who begin the study of Linguistics as a Major in their first or second years should take Linguistics 100, Linguistics 250, and then five senior courses in Linguistics in their third and fourth years.

Students who begin the study of Linguistics as a Major in their third or fourth years should take Linguistics 360 or 361 and four other senior courses in Linguistics.

Honours — Students who wish to take an Honours Programme in Linguistics begin the programme in the third year with 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 a senior Linguistics course in each of the third and fourth years additional to those required for the major, one of which must be Linguistics 499.

## SAMPLE PROGRAMMES FOR A MAJOR IN LINGUISTICS

With a concentration of electives  
in English

With a concentration of electives  
in Mathematics

Year

- |  |   |
|--|---|
| <p>I. Linguistics 100<br/>English 110 or 120<br/>A language<br/>Elective (Philosophy 202<br/>recommended)<br/>Elective (A Science course<br/>recommended)</p>  | <p>Linguistics 100<br/>Mathematics 100 and 101, or 102 and<br/>151<br/>English<br/>Philosophy 202<br/>A language</p>  |
| <p>II. Linguistics 250<br/>English 200<br/>The language begun in the first year<br/>Elective (If Linguistics 100 has not<br/>been taken, it must be taken<br/>here.)</p>   | <p>Linguistics 250<br/>Mathematics 200 and 201, or 240<br/>The language of first year<br/>Elective (If Linguistics 100 has not<br/>been taken, it must be taken<br/>here.)<br/><br/>Elective</p>  |
| <p>III. Linguistics 390<br/>Linguistics 370 or 380<br/>Linguistics 460<br/>English 400 or a senior English<br/>course by permission of the<br/>Department.<br/>Elective (If no previous Linguistics<br/>courses have been taken,<br/>Linguistics 360 or 361 will<br/>be taken here.)</p> | <p>Linguistics 370 recommended; an-<br/>other senior linguistics course allowed.<br/>Linguistics 380 recommended; an-<br/>other senior linguistics course allowed.<br/>Mathematics 110 and 210<br/>Mathematics<br/>An elective (If no previous courses in<br/>linguistics have been<br/>taken Linguistics 360 or<br/>361 will be taken here.)</p> |
| <p>IV. Linguistics 420 or elective<br/>Linguistics 430<br/>A Senior Linguistics course<br/>English 441<br/>A senior English course</p>   | <p>Linguistics 481<br/>Linguistics 460<br/>Mathematics 332<br/>A course selected in consultation with<br/>the Mathematics Department.<br/>A senior Linguistics course.</p>  |

Students in English who wish to have Linguistics as a second area of concentration should take Linguistics 100 and at least three senior Linguistics courses, including Linguistics 390. Students in English who begin the study of Linguistics in their third year may satisfy the requirements for Linguistics as an area of concentration by taking Linguistics 360 or 361 and two other senior Linguistics courses, including Linguistics 390.

Students in Mathematics who wish to have Linguistics as a second area of concentration should take Linguistics 100 and three senior courses in Linguistics, including Linguistics 481. Students in Mathematics who wish to begin the study of Linguistics as an area of concentration in their third year should take Linguistics 360 or 361 and two other senior Linguistics Courses, including Linguistics 481.

### COURSES OFFERED

#### LING 100. (3) *Introduction to Linguistics*

The nature of language. Elementary methods of language analysis. The major language families of the world. Principles of historical and comparative linguistics. Illustrations from various languages.

The final grade will be based on a substantial number of assignments completed in class and outside.

Texts: Bolinger, *Aspects of Language*. Recommended reading: Sapir, *Language*; Bloomfield, *Language History*.

J.-P. Vinay, and members of the Department.

(2-0-1; 2-0-1)

LING 250. (3) **Phonology**

This course will deal with the theory of the production and nature of speech sounds in general, and provide practice in recognizing, transcribing, and producing a wide variety of such sounds. Attention will be given to the ways in which the sound systems of particular languages are structured.

This is a laboratory-type course, and the final grade is largely based on work completed there and on outside assignments.

Prerequisite: Linguistics 100 or permission of the Department.

Texts: Smalley, *Manual of Articulatory Phonetics and Workbook*.

Drs. O'Grady and Hoard.

(3-0; 3-0)

LING 340 (formerly 460). (3) **Morphology and Syntax**

The theory of the descriptive analysis of words (morphology). Grammatical analysis at the sentence level (syntax), based on several contemporary models of grammar.

Prerequisite: Ling. 100 or equivalent or permission of the Department.

Texts: Jacobs and Rosenbaum, *English Transformational Grammar*; Bach and Harms (Ed.), *Universals in Linguistic Theory*.

Dr. Hoard.

(3-0; 3-0)

LING 360. (3) **General Linguistics**

An introduction to Linguistics intended for students with no previous knowledge of the subject who desire a single senior course or who wish to begin the study of Linguistics in their senior years. This course will cover, at the level expected in senior courses, most of the material listed in Linguistics 100. Not open to students with Linguistics 100.

Texts: Gleason, *Introduction to Descriptive Linguistics and Workbook*.

(3-0; 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 had Linguistics 100.

The final grade will be based on a fair number of assignments.

Prerequisite: An introductory course in Anthropology.

Dr. Hess.

(3-0; 3-0)

LING 370. (Psychology 370) (3) **Psycholinguistics**

Linguistics 370 is offered in collaboration with the Department of Psychology. A course in the psychopathology of language, covering such topics as the nature and function of language, language acquisition, and language change; the pathology of linguistic behaviour, language and cognition. (This course alternates with Linguistics 570.) Prerequisite: permission of both Departments.

Texts: To be announced.

Drs. Kess and Hoppe.

(3-0; 3-0)

LING 380. (3) **Experimental Phonetics**

The study of the acoustic and detailed articulatory properties of speech sounds. Introduction to such instruments as the Sound Spectrograph and Electronic Vocal Analog.

This is primarily an experimental laboratory course and the final grade is based on written reports of experiments.

Prerequisite: Ling. 100, Ling. 250 or permission of the Department.

Texts: Lehiste, *Readings in Acoustic Phonetics*; Ladefoged, *Elements of Experimental Phonetics*.

Dr. Warkentyne.

(2-1; 1-2)

LING 390. (English 390) (3) **The Growth and Structure of Modern English**

A descriptive approach to the structure of Modern English, designed especially for those students who are interested in the application of modern linguistic science, particularly structural and transformational theory, to an understanding of the language. So that Modern English may be seen in its proper perspective, attention will

be given to the history of the language, including the development of Canadian English.

The final grade is based on six substantial assignments. A fair amount of additional reading is provided in mimeograph form. Students are also provided with a list of reference books. Assignments usually require original and independent research.

Texts: Cook, *Introduction to the English Language*; Pyles, *The Origins and Development of the English Language*; Algeo and Pyles, *Problems in the Origins and Development of the English Language*.

Drs. Scargill and Kess. (3-0; 3-0)

LING 400. (3) **Field Methods and Techniques in Language Analysis**

Field methods and techniques in language analysis, using informants or recordings or both. The Department is particularly interested in American Indian and Eskimo languages. Prerequisites: Linguistics 250 and 340.

(Not offered 1970-71). (3-0; 3-0)

LING 420. (3) **Historical and Comparative Linguistics**

The historical and comparative method in the study of Indo-European languages. In the second term, the linguistic structure of Sanskrit will be introduced as a prime example of an Indo-European language. Reading of selected texts.

Prerequisite: Linguistics 100 or 360 or equivalent.

Text: Meillet, *Introduction a l'étude comparative des langues indo-européennes*.

Drs. Hoard and Vinay. (3-0; 3-0)

LING 430. (3) **Dialectology**

The study of regional and social dialects with emphasis on Canada. Principles of lexicography.

Further required reading is provided in mimeograph form. Four or five substantial assignments are the basis of the final grade.

Prerequisites: Linguistics 100 or 360 or permission of the Department.

Texts: Kurath, *Handbook of the Linguistic Geography of New England*; Hulbert, *Dictionaries: British and American*; Shuy, *Discovering American Dialects*.

Dr. Warkentyne. 3-0; 3-0)

LING 448. (1 ½) **Directed Reading in Linguistics**

Members of the Department. First term only. (3-0; 0-0)

LING 449. (1 ½) **Directed Reading in Linguistics**

Members of the Department. Second term only. (0-0; 3-0)

LING 450 (formerly 350). (1 ½) **Seminar in Languages**

An elementary analysis of a language. First term: a Salish language.

Prerequisites: Linguistics 100 and 250.

Dr. Hess. First term only. (3-0; 0-0)

LING 451 (formerly 350). (1 ½) **Seminar in Languages**

An elementary analysis of a language. Second term: Hungarian.

Prerequisites: Linguistics 100 and 250.

Text: Whitney, *Colloquial Hungarian*.

Dr. O'Grady. Second term only. (0-0; 3-0)

LING 480. (1 ½) **Contrastive Linguistics**

The comparison of the phonological and syntactic structure of two or more languages to show similarities and differences. Particular emphasis on French and the Germanic languages.

(Not offered 1970-71). (3-0; 0-0)

LING 481. (1 ½) **Introduction to Computer Linguistics**

Principles of computer analysis and synthesis of language data. The design and use of automatic dictionaries. Exercises in mechanical translation.

For students with a strong mathematical background or inclination.

(Offered in second term, alternate years. Not offered 1970-71). (0-0; 3-0)

LING 499. (3) **Honours Essay**

An essay required of honours students in the fourth year.

NOTE: Education 490, *Principles of Teaching Second Languages*, is open to students in the Faculty of Arts and Science. It is suggested that advanced linguistics students might consider taking Education 746, *Methods course: Teaching Language*.

## GRADUATE COURSES

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

LING 501. (3) **Seminar in Canadian English** (3-0; 3-0)

LING 502. (3) **Seminar in Descriptive Linguistics** (3-0; 3-0)

LING 503. (3) **Seminar in Grammatical Theory** (3-0; 3-0)

LING 504. (3) **Seminar in Machine Translation** (3-0; 3-0)

LING 570. (Psychology 570) (1-3) **Psycholinguistics** (3-0; 3-0)

LING 599. (Credit to be determined) **Thesis**

# DEPARTMENT OF MATHEMATICS

- Stephen A. Jennings, M.A., Ph.D. (*Tor.*), Professor.  
Sudhish G. Ghurye, B.Sc., M.Sc. (*Bombay*), Ph.D. (*North Carolina*), F.I.M.S., Professor.  
Robert T. D. Wallace, M.A. (*Brit. Col.*), Professor.  
Ian Barrodale, B.Sc. (*Wales*), M.A. (*Brit. Col.*), Ph.D. (*Liverpool*), Associate Professor.  
Fernand E. Deloume, B.A. (*Brit. Col.*), M.A. (*Tor.*), Ph.D. (*U.S.C.*), P.Eng. (*Brit. Col.*), Associate Professor.  
Lowell A. Hinrichs, B.A., M.A., Ph.D. (*Oregon*), Associate Professor.  
D. Elizabeth Kennedy, M.A. (*Brit. Col.*), Associate Professor.  
O. Phoebe Noble, B.A. (*Brit. Col.*), Associate Professor.  
Robert E. Odeh, M.S., Ph.D. (*Carnegie Inst. of Tech.*), Associate Professor.  
Hari M. Srivastava, B.Sc., M.Sc. (*Allahabad*), Ph.D. (*Jodhpur*), F.R.A.S. (*London*), F.N.A.Sc. (*India*), Associate Professor.  
Arne P. Baartz, M.A., Ph.D. (*Oregon*), Assistant Professor.  
Leon Bowden, B.Sc. (*London*), B.Litt. (*Oxon*), Assistant Professor.  
Stanley R. Clark, B.A.Sc. (*Brit. Col.*), M.Sc. (*Aberdeen*), Ph.D. (*Manchester*), Assistant Professor.  
Ernest J. Cockayne, M.A. (*Oxon.*), M.Sc. (*McGill*), Ph.D. (*Brit. Col.*), Assistant Professor.  
Roger R. Davidson, B.Sc. (*Queen's*), M.A. (*Tor.*), Ph.D. (*Florida St.*), Assistant Professor.  
Bryon L. Ehle, A.B. (*Whitman*), M.S. (*Stanford*), Ph.D. (*Waterloo*), Assistant Professor.  
William R. Gordon, M.A. (*Brit. Col.*), Ph.D. (*Calif.*), Assistant Professor.  
Walter P. Kotorynski, B.A. (*West. Ont.*), M.A., Ph.D. (*Tor.*), Assistant Professor.  
David J. Leeming, B.Sc. (*Brit. Col.*), M.A. (*Oregon*), Ph.D. (*Alta.*), Assistant Professor.  
Robert A. MacLeod, B.Sc. (*Alta.*), M.S. (*Cal. Tech.*), Ph.D. (*Alta.*), Assistant Professor.  
C. Robert Miers, B.A. (*Knox College*), M.A., Ph.D. (*Calif.*), Assistant Professor.  
Donald J. Miller, B.Sc., Ph.D. (*McMaster*), Assistant Professor.  
Gary G. Miller, M.Sc., Ph.D. (*Missouri*), Assistant Professor.  
William E. Pfaffenberger, M.A., Ph.D. (*Oregon*), Assistant Professor.  
James Riddell, M.Sc., Ph.D. (*Alta.*), Assistant Professor.  
F. D. K. Roberts, B.A. (*Cantab.*), M.Sc., Ph.D. (*Liverpool*), Assistant Professor.  
Earl D. Rogak, B.Ch.E. (*Cooper Union*), M.S.E., Ph.D. (*Michigan*), Assistant Professor.  
H. Paul Smith, B.A., M.Ed. (*Brit. Col.*), M.A. (*U. of Wash.*), Assistant Professor.  
Elizabeth M. Strohmeier, B.A. (*So. Dakota*), M.A., Ph.D. (*Wash. St.*), Assistant Professor.  
Pauline van den Driessche, M.Sc., D.I.C. (*Imp. Coll.*), Ph.D. (*Wales*), Assistant Professor.  
C. E. Murley, B.A. (*Colorado*), M.S. (*Wash.*), Lecturer.  
Flora Baartz, B.Sc. (*Oregon*), Part-time Lecturer.  
Zulette Gordon, B.A. (*Brit. Col.*), M.A., C.Phil. (*Calif.*), Part-time Lecturer.  
Jean Sargent, B.A. (*Brit. Col.*), Ph.D. (*Tor.*), Part-time Lecturer.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

Under the requirements of either the B.A. or B.Sc. degrees, students may proceed to Honours or a Major in Mathematics or may take a concentration in the General course.

General — (a) Mathematics 100 and 101 (or 130); (b) Mathematics 110 and 210 (or 232); (c) Mathematics 200 and 201 (or 230); (d) 9 additional units of Mathematics courses numbered 300 or higher.

Major — (a) Mathematics 100 and 101 (or 130); (b) Mathematics 110 and 210 (or 232); (c) Mathematics 200 and 201 (or 230); (d) Mathematics 330 and 332; (e) 9 additional units of Mathematics courses numbered 300 or higher chosen in consultation with the Department.

Students wishing to emphasize computing science in their major must, in addition to the above, take Mathematics 170, 171, 271 and 272 together with 349 and three units chosen from 370, 371, 372, 448, 449, 470, 471, 472.

Honours — (a) Mathematics 100 and 101 (or 130); (b) Mathematics 110 and 210 (or 232); (c) Mathematics 200 and 201 (or 230); (d) Mathematics 315, 325, 331, 333, 335 and must complete at least one of the following emphases.

- (i) Pure Mathematics emphasis — Mathematics 465, 433, 435 and 441.
- (ii) Applied Mathematics emphasis — Mathematics 435, 445 and 6 additional units of Mathematics chosen in consultation with the Department.
- (iii) Probability and Statistics emphasis — Mathematics 435, 441, 443 and 3 additional units of Mathematics chosen in consultation with the Department.
- (iv) Computing Science emphasis — Mathematics 349, 449; 3 units chosen from Mathematics 470, 471, 472, 448; 3 additional units of Mathematics chosen in consultation with the Department.
- (v) Twelve units of Mathematics chosen in consultation with the Department. At least 9 of the 12 units must be chosen from courses numbered 400 or higher.

In general, students will be admitted into the third year of the Honours Programme only if they have clear standing, a second class average or higher in at least 15 units in second year and have obtained a grade of B or higher in each of the Mathematics courses taken in first and second year. Students will be permitted to enrol in the third year of the Honours Programme only if they have the consent of the Department.

NOTE 1. All students taking a Major or Honours in Mathematics are strongly advised to take at least one University course in Physics.

NOTE 2: Any student who demonstrates to the Department that he has mastered the material of a course may be granted advance placement.

NOTE 3: Students wishing to enrol in Mathematics 100, 102, 110 or 130 who have no credit for Mathematics 12 (or its equivalent) must enrol in Mathematics 012 during the fall term.

- NOTE 4: (a) Students who have obtained credit for Mathematics 113 or 120 (taken in Grade 13, at the University of British Columbia or at this university) should consult the Department for placement and may be required to take Mathematics 101.
- (b) Students from outside British Columbia must consult the Department for placement before enrolling for any Mathematics course.
  - (c) Transfer students from Junior Colleges will be given appropriate credit and should consult the Department before enrolling for any Mathematics course.

NOTE 5. Third or fourth year students with clear standing and a second class average or higher in at least 15 units in Second Year and who have B+ or higher in each of Mathematics 201 (or 230) and 210 (or 232) may, with the permission of the Department and of the instructors concerned, register for one or more of Mathematics 331, 333 and 335. Second year students who have obtained high standing in Mathematics 101 (or 130) and 210 (or 232) may be permitted to enrol in Mathematics 315 and 333 with the consent of the Department.

NOTE 6. Students who do not possess the listed prerequisites for a course may, with the permission of the instructor and of the Department, be permitted to enrol for the course. In particular, second year students with a grade of D in the prerequisite first year course will normally be permitted to enrol for second year Mathematics courses only if they have a grade point average of 2.0 or higher.

NOTE 7. Students who have completed each of Mathematics 101 and 210 with a grade of C+ or better in their first year may, with permission of the Department, enrol for any of the following courses in their second year: Mathematics 310, 332, 337, 339 (provided their grade in Mathematics 210 is B- or higher), 340, 343.

## REQUIREMENTS IN THE DEPARTMENT OF MATHEMATICS

### GENERAL

- (a) Mathematics 100, 101 (or 130)
- (b) Mathematics 110, 210 (or 232)
- (c) Mathematics 200, 201 (or 230)
- (d) 9 units of Mathematics in courses numbered 300 or higher

### MAJOR

- (a) Mathematics 100, 101 (or 130)
- (b) Mathematics 110, 210 (or 232)
- (c) Mathematics 200, 201 (or 230)
- (d) Mathematics 330 or 331  
Mathematics 332 or 333
- (e) 9 additional units of Mathematics in courses numbered 300 or higher

NOTE: Students wishing to take a major in Mathematics with an emphasis in Computing Science must take

- (a) Mathematics 100, 101 (or 130)
- (b) Mathematics 110, 210 (or 232)
- (c) Mathematics 170 and 171
- (d) Mathematics 200, 201 (or 230)
- (e) Mathematics 270 and 271
- (f) Mathematics 330 or 331  
Mathematics 332 or 333
- (g) Mathematics 349
- (h) 3 units chosen from 370, 371, 372, 448, 449, 470 471, 472
- (i) 3 additional units of Mathematics in courses numbered 300 or higher

### HONOURS

- (a) Mathematics 100, 101 (or 130)
- (b) Mathematics 110, 210 (or 232)
- (c) Mathematics 200, 201 (or 230)
- (d) Mathematics 315  
Mathematics 325  
Mathematics 331  
Mathematics 333  
Mathematics 335
- (e) 12 additional units of Mathematics chosen to complete at least one of the following emphases
  - (i) Pure Mathematics
  - (ii) Applied Mathematics
  - (iii) Probability and Statistics
  - (iv) Computing Science
  - (v) Department approved option

## COURSES OFFERED

### MATH 012. (no credit) **Pre-Calculus Mathematics**

The essentials of Mathematics 12 which are prerequisite to Mathematics 100, 102, 110. Topics covered include: set language, algebra of polynomials, relations, functions and their graphs, conics, trigonometry, plane analytic geometry .

Offered only in the first term.

(3-0; 0-0)

### MATH 100. (1 ½) **Calculus I**

The derivative; differentiation of polynomials, rational, trigonometric, logarithmic and exponential functions; the definite integral; application of differentiation and integration.

Prerequisite: Mathematics 12 or its equivalent.

Offered in both the first and second terms.

(3-0)

### MATH 101. (1 ½) **Calculus II**

Techniques of integration, applications of integration, Taylor's formula; infinite series.

Prerequisite: Mathematics 100 or Mathematics 113 (B.C.).

Offered in both the first and second terms.

(3-0)

### MATH 102 (formerly one-half of 140). (1 ½) **Calculus for Social Science Students**

Calculus of one variable with applications to the social and biological sciences.

Prerequisite: Mathematics 12 or its equivalent.

Not open to students who have credit in Mathematics 100.

Offered in the second term only.

(0-0; 3-0)

### MATH 110. (1 ½) **Algebra and Geometry**

Complex numbers, linear equations, determinants and solid geometry.

Prerequisite: Mathematics 12 or its equivalent.

Offered in both the first and second terms.

### MATH 130. (3) **Calculus I and II**

Same as Mathematics 100 (first term) and Mathematics 101 (second term).

Prerequisite: Mathematics 12 or its equivalent.

(3-0; 3-0)

### MATH 151 (formerly one-half of 140). (1 ½) **Finite Mathematics for Social Science Students**

Sets, logic, combinatorics, introduction to probability, matrix algebra.

Prerequisite: Mathematics 12 or its equivalent or Mathematics 012 which may be taken concurrently.

Offered in both the first and second terms.

(3-0)

### MATH 160. (3) **Fundamental aspects of Mathematics for the Elementary Teacher**

For credit only in the Faculty of Education.

(3-0; 3-0)

### MATH 170. (1 ½) **Introduction to Computing**

This basic course, which is primarily Fortran programming, should be of interest to students from all disciplines. It is also a prerequisite for all further courses in Computing Science. In the laboratory the student will write programmes for the IBM 360-Model 44.

Prerequisite: Mathematics 12 or its equivalent.

Offered in both the first and second terms. Students intending to take a major or honours in Mathematics with a computing science option should take Mathematics 170 in the first term.

It may be necessary to restrict enrolment in this course.

(2-2)

### MATH 171. (1 ½) **Computer Applications**

This course provides an introduction to practical applications of computers in science, industry, and commerce. In the laboratory the student will solve problems from these areas using the IBM 360-Model 44.

Prerequisite: Mathematics 170.

Offered only in the second term.

(0-0; 2-2)

**MATH 180 (formerly 150). (3) General Mathematics**

An intuitive introduction to calculus, elementary matrix algebra and probability. Primarily for Social Science students.

Prerequisite: Mathematics 11 or Mathematics 91 or equivalent.

Not open to students who have completed Mathematics 12. (3-0; 3-0)

**MATH 200. (1½) Calculus III**

Differentiation of vectors, functions of several variables, chain rule and gradient, potential functions and curve integrals, higher order partial derivatives and applications, introduction to differential equations.

Prerequisite: A grade of C or higher in Mathematics 101 (or 130) and Mathematics 110 (which may be taken concurrently), or see Notes 2, 4, 6 above.

Offered in both the first and second terms. (3-0)

**MATH 201. (1½) Calculus IV**

Functions of several variables, multiple integrals, Green's theorem, Fourier series. Introduction to analysis including proofs of some theorems assumed in earlier work.

Prerequisite: Mathematics 110, 200 and Mathematics 210 which may be taken concurrently.

Offered in the second term only. (0-0; 3-0)

**MATH 203. (3) Elementary Mathematics for Teachers**

For credit only in the Faculty of Education. (3-0; 3-0)

**MATH 210. (1½) Linear Algebra I**

An introduction to the algebra of matrices and linear transformations.

Prerequisite: Mathematics 110.

NOTE: This course is open to first year students who have taken Mathematics 110 in the first term.

Offered in both the first and second terms. (3-0)

**MATH 212. (1½) Introductory Algebra**

This course is designed to acquaint the student with some notions which are fundamental to further work in Mathematics. Topics covered will include: Mathematical induction; elementary set theory; relations and functions; cardinality; permutations; convex sets; linear functions and linear programming; elementary inequalities divisibility theory of the integers and of polynomials; the solution of polynomial equations.

Prerequisite: Mathematics 110.

(Not offered in 1970-71).

**MATH 230. (3) Calculus III and IV**

Same as Mathematics 200 (first term) and Mathematics 201 (second term).

Prerequisite: A grade of C or higher in Mathematics 101 (or 130). See notes 2, 4, 6 above.

Corequisite: Mathematics 232. (3-0; 3-0)

**MATH 231. (3) Second Year Calculus**

Calculus of functions of several variables with applications to the physical sciences, infinite series, introduction to differential equations, vectors.

NOTE: This course may not in general be included as part of the Mathematics department's requirement for the Major or Honours programme.

Prerequisite: Mathematics 101 (or 130). (3-0; 3-0)

**MATH 232. (3) Introductory Linear Algebra**

Same as Mathematics 110 (first term) and Mathematics 210 (second term).

(3-0; 3-0)

**MATH 235. (1½) Introduction to real analysis**

Primarily for honours students.

An introduction to the topology of the real line. Properties of real functions, continuity, Riemann integrability. Differential and integral operators. Introduction to measure.

Prerequisite: Mathematics 101 and 110 or Mathematics 200. If credit for Mathematics 200 has not been obtained. Mathematics 235 and Mathematics 200 must be taken concurrently.

(Not offered in 1970-71).

**MATH 240. (3) Mathematics for Social Science Students II**

Linear algebra, probability, multi-variable calculus, difference and differential equations.

Prerequisite: Mathematics 140 or Mathematics 151 and Mathematics 100 or 102.

NOTE: Students who have obtained credit for Mathematics 100 and 101 (or 130) may enrol for Mathematics 240 provided they enrol for Mathematics 151 concurrently. (3-0; 3-0)

**MATH 271. (1½) Computer Fundamentals**

Data representation. Organization and characteristics of computers. Survey of computers, languages and systems. Several computer projects to illustrate the basic structure of computers using a hypothetical decimal computer.

Prerequisite: A grade of C or higher in Mathematics 171. See notes 2, 4, 6 above.

Offered only in the first term. (2-2; 0-0)

**MATH 272 (formerly 270). (1½) Computers and Programming**

Computer structure, machine language, instruction execution, addressing techniques, and digital representation of data. Computer systems organization, logic design, microprogramming and interpreters. Symbolic coding and assembly systems, macro definition and generation, programme, segmentation and linkage. Systems and utility programmes, programming techniques, and recent developments in computing. Several computer projects to illustrate basic machine structures and programming techniques.

Prerequisite: Mathematics 271.

Offered only in the second term. (0-0; 2-2)

**Students with a D grade in Second Year Mathematics courses are advised not to register for further courses in Mathematics.**

**MATH 303. (3) Applied Analysis**

Topics from advanced calculus with applications to the physical sciences.

Prerequisites: Mathematics 231 or Mathematics 230 and 232.

NOTE: This course may not in general be included as part of the Mathematics Department's requirements for the general, major or honours degrees. (3-0; 3-0)

**MATH 310. (1½) Further topics in Linear Algebra**

Topics in linear algebra including eigenvalues, eigenvectors and inner product spaces.

Prerequisite: Mathematics 210.

Offered in the first term only. (3-0; 0-0)

**MATH 315 (formerly 211). (1½) Linear Algebra II**

Further topics in linear algebra including canonical forms and inner product spaces. Primarily for Honours students.

Prerequisites: B or higher in each of Mathematics 201 and 210 (or 230 and 232) and the consent of the Department (see note 5 above).

Offered in the first term only. (3-0; 0-0)

**MATH 323. (3) Differential equations and their Applications to the Physical Sciences**

Ordinary and partial differential equations.

Primarily for students in the physical sciences.

Prerequisites: Mathematics 231 or Mathematics 230 and 232.

NOTE: This course may not in general be included as part of the Mathematics Department's requirements for the general, major or honours degrees. (3-0; 3-0)

**MATH 325. (1½) Differential Equations**

Theory of ordinary differential equations. Existence, uniqueness theorems. Cauchy-Peano and Picard theorems. Theory of linear systems and related boundary problems.

Primarily for Honours students.

Prerequisites: B or higher in each of Mathematics 201 and 210 (or 230 and 232) and the consent of the Department (see note 5 above).

Offered in the second term only. (0-0; 3-0)

**MATH 330. (3) Third Year Calculus**

Partial differentiation, vectors and vector fields, curves and surfaces, line and surface integrals including Green's, Stokes' and the divergence theorems. Introduction to complex variable.

Prerequisites: Mathematics 201 and 210 (or 230 and 232).

NOTE: Students with high standing in Mathematics 231 may, with the permission of the Department, be permitted to enrol for Mathematics 330. (3-0; 3-0)

**MATH 331. (3) Advanced Calculus**

Differentiation and integration of functions of several variables, vector field theory. An introduction to complex variables.

Primarily for Honours students.

Prerequisites: B or higher in each of Mathematics 201 and 210 (or 230 and 232) and the consent of the Department. (see note 5 above). (3-0; 3-0)

**MATH 332. (3) Survey of Modern Algebra**

Axiomatic approach to number systems. General algebraic structures. Introduction to the theory of groups, rings, fields and integral domains.

Prerequisite: Mathematics 210 (or 232). (3-0; 3-0)

**MATH 333. (3) Algebra I**

Algebraic Structures.

Primarily for Honours students.

Prerequisites: B or higher in each of Mathematics 201 and 210 (or 230 and 232) and the consent of the Department (see Note 5 above). (3-0; 3-0)

**MATH 335. (3) Real Analysis I**

Informal logic; real numbers; elements of metric topology; sequences and series; functions, limits, continuity; Riemann-Stieltjes integration.

Primarily for Honours students.

Prerequisites: B or higher in each of Mathematics 230 and 232 and the consent of the Department (see note 5 above). (3-0; 3-0)

**MATH 337. (3) Modern Geometry**

Topics chosen from Euclidean, projective, differential and non-Euclidean geometries.

NOTE: Students proposing to teach Mathematics in secondary school are urged to take this course.

Prerequisites: Mathematics 201 and 210 (or 230 and 232). (3-0; 3-0)

**MATH 339. (3) Number theory**

Congruences, numerical functions, elementary theory of primes, quadratic residues. Further topics to be selected from partitions, compositions, distribution of primes, geometry of numbers, rational approximations.

Prerequisites: Mathematics 332 or 333 or B- or higher in Mathematics 210 (or 232). (3-0; 3-0)

**MATH 340. (3) Probability**

Introduction to probability theory and its applications. Historical development of the definition of probability. Basic properties of probability as a function defined on sets. Conditional probability. Random variables and probability distributions. Mathematical expectation. Sums of random variables. Basic limit theorems. Special topics include Markov chains, Poisson processes and reliability theory.

Prerequisites: Mathematics 201 or 210 (or 230 and 232). (3-0; 3-0)

**MATH 343. (3) Statistical Methods**

Elementary probability theory, distribution functions, sample spaces, and the formulation of statistical hypotheses. Elementary statistical limit theorems. Brief discussion of typical problems of statistical inference: point estimation, confidence intervals, stratified sampling, regression and correlation analysis, distribution-free methods. Primarily for the non-major who has a working knowledge of calculus, and for the major who intends to take no further work in statistics.

Prerequisites: Mathematics 201 or 240.

(3-0; 3-0)

**MATH 345. (3) Differential Equations**

First order differential equations; second and higher order linear differential equations including the use of the Laplace transform; systems of linear differential equations, the method of successive approximations; series solutions including Legendre polynomials and Bessel functions; Fourier series; partial differential equations.

Prerequisites: Mathematics 201 (or 230) and Mathematics 210 (or 232) and Mathematics 330 or 331, which may be taken concurrently.

(3-0; 3-0)

**MATH 349. (3) Numerical Analysis I**

Analysis of truncation and roundoff errors. Error propagation. Approximations to functions. Roots of equations. Numerical evaluation of integrals. Simultaneous linear algebraic equations. Ordinary and partial differential equations. In the laboratory the student will write programmes using the IBM 360-Model 44.

Prerequisites: Mathematics 171 and Mathematics 330 (or 331) which may be taken concurrently.

(2-2; 2-2)

**MATH 360. (3) Topics in Mathematics**

This course is designed for students whose primary interest is not Mathematics. It may not be included as part of the Mathematics Department's requirement for the Major or Honours programme.

The purpose of the course is to give insight into the art of Mathematics. Several topics will be selected from diverse fields of Mathematics. Students will be expected to participate in the solution of mathematical problems.

Prerequisites: A cumulative grade-point average of at least 3.5 or consent of the Department. No previous mathematics courses are required.

(3-0; 3-0)

**MATH 370. (1 1/2) Programming Languages**

Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of programme and data structures.

Prerequisites: Mathematics 201, 270 or 272.

Offered only in the first term.

(3-0; 0-0)

**MATH 371. (1 1/2) Systems Programming**

Review of batch process systems programmes, their components, operating characteristics, user services and their limitations. Implementation techniques for parallel processing of input-output and interrupt handling. Overall structure of multiprogramming systems on multiprocessor hardware configurations. Details on addressing techniques, core management, file system design and management, system accounting, and other user-related services. Traffic control, interprocess communication, design of system modules, and interfaces. System updating, documentation, and operation.

Prerequisite: Mathematics 370.

Offered only in the second term.

(0-0; 3-0)

**MATH 372 (formerly 213). (1 1/2) Discrete Structures**

Mapping and relations. Algebraic structures including groups and semi-groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications to computing science.

Prerequisite: Mathematics 171, 201.

Offered in second term only.

(0-0; 3-0)

**MATH 410. (1 ½) Algebra for Scientists I**

Eigenvalues and eigenvectors; diagonalization, theorems; quadratic forms and bilinear forms.

NOTE: This course is intended primarily for fourth year and graduate students in Physics and Chemistry.

Prerequisites: Mathematics 210, Mathematics 323 or 345 and Physics 321 (which may be taken concurrently).

Offered in the first term only. (3-0; 0-0)

**MATH 412. (1 ½) Algebra for Scientists II**

Symmetry groups and their representations with applications.

Prerequisites: Mathematics 410 or permission of the Instructor.

Offered in the second term only. (0-0; 3-0)

**Note: Admission to the following courses is by permission of the Instructor or of the Department.**

**MATH 430. (1 ½) Introduction to analysis**

Topics selected from: metric and normed spaces, the classical function spaces and the operators on them.

NOTE: This course is primarily for students taking a major in Mathematics.

Prerequisites: Mathematics 330 and 332.

Offered in the second term only. (0-0; 3-0)

**MATH 433. (3) Algebra II**

Further topics in Algebra. Primarily for Honours students.

Prerequisite: Mathematics 333. (3-0; 3-0)

**MATH 435. (3) Real Analysis II**

Category and convergence; Lebesgue measure and integration; introduction to normed linear spaces. Primarily for Honours students.

Prerequisites: Mathematics 331 and 335 or the consent of the Department.

(3-0; 3-0)

**MATH 441. (3) Complex Analysis**

A study of functions of a complex variable, including integration and differentiation. Sets of points in the complex plane; analytic and elementary functions; complex integrals; power series; calculus of residues; analytic continuation; conformal representation.

Prerequisites: Mathematics 330 or 331. (3-0; 3-0)

**MATH 443. (3) Mathematical Statistics**

Development of probability and distribution theory. A discussion of statistical limit theorems. A study of problems in statistical inference with emphasis on the general decision problem, the properties of estimators, and the theory of tests of hypotheses. The development and application of parametric and distribution-free procedures.

Prerequisites: Mathematics 330 or 331, Mathematics 332 or 333 or the consent of the Department. (3-0; 3-0)

**MATH 445. (3) Theory of Ordinary Differential Equations**

Existence and uniqueness theorems; systems of ordinary differential equations and stability of their solutions; Green's functions; introduction to the calculus of variations.

Prerequisite: Mathematics 325 or 345 or the consent of the Department.

(3-0; 3-0)

**MATH 448 (formerly 481). (3) Introduction to Operations Research**

Linear programming, dynamic programming, transportation algorithm, queueing theory, simulation and Monte Carlo techniques, Inventory, PERT, Critical path, game theory.

Prerequisite: Mathematics 349. (3-0; 3-0)

**MATH 449. (3) Numerical Analysis II**

Error analysis; roots of equations; solution of systems of equations; matrix inversion; calculation of eigenvalues; difference and differential equations; approximation theory. Students will write programmes using the IBM 360 Model 44.

Primarily for Honours students.

Prerequisites: Mathematics 349 and 335 (which may be taken concurrently).  
(3-0; 3-0)

**MATH 465 (formerly 411). (3) Introduction to Topology**

Basic concepts of point set topology; a choice of topics from elementary algebraic topology and general topology.

Prerequisites: Mathematics 332 or 333, and Mathematics 335, or the consent of the Department.  
(3-0; 3-0)

**MATH 470. (3) Computing Science Seminar**

Information organization and retrieval. Switching theory. Sequential Machines. Artificial Intelligence and Heuristic Programming.

Prerequisite: Mathematics 270 or 272.

(May not be offered in 1970-71).  
(3-0; 3-0)

**MATH 471. (1½) Compiler Construction**

Review of programme language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping.

Prerequisites: Mathematics 370.

Offered only in the first term.  
(3-0; 0-0)

**MATH 472. (1½) Theory of Computability**

Introduction to Turing machines, Wang machines, Shepherdson-Sturgis, and other machines. Godel numbering and unsolvability results, the halting problem. Post's correspondence problem, and relative uncomputability. Machines with restricted memory access, limited memory, and limited computing time. Recursive function theory and complexity classification. Models of computation including relationships to algorithms and programming.

Prerequisite: Mathematics 372.

Corequisite: Mathematics 332 or 333.

Offered only in the second term. (May not be offered in 1970-71).  
(0-0; 3-0)

**MATH 480. (3) Seminar in Mathematics**

Students must consult the Department before registering.

**MATH 490 (formerly 470). (3) Directed Studies in Mathematics**

Students must consult the Department before registering.

## GRADUATE COURSES

Certain of the following courses will be offered each year. Interested students should consult the department.

**MATH 510. (4) Abstract Algebra**

A detailed study of basic algebraic systems.

Prerequisite: Mathematics 433 or equivalent.  
(3-0-1)

**MATH 511. (4) Topics in Matrix Theory and Linear Algebra**

Prerequisite: Mathematics 333 or equivalent.  
(3-0-1)

**MATH 520. (4) Number Theory**

Advanced topics in Number Theory.

Prerequisite: Mathematics 339, 441 or equivalent.  
(3-0-1)

- MATH 530. (4) **Analysis**  
 Selected topics from real and complex analysis.  
 Prerequisite: Mathematics 441, 435 or equivalent. (3-0-1)
- MATH 531. (4) **Functional Analysis**  
 Prerequisite: Mathematics 435, 411 or equivalent. (3-0-1)
- MATH 540. (4) **Topology**  
 Advanced topics in point-set topology, introduction to algebraic topology.  
 Prerequisite: Mathematics 411, 433 or equivalent. (3-0-1)
- MATH 550. (4) **Topics in Applied Mathematics**  
 Boundary value problems with selected applications.  
 Prerequisite: Consent of the instructor. (3-0-1)
- MATH 551. (4) **Differential and integral equations**  
 Prerequisite: Mathematics 435 or equivalent. (3-0-1)
- MATH 560. (4) **Probability and Stochastic processes**  
 Advanced probability and distribution theory, sequences of random variables, Markov processes, Poisson processes, Weiner processes and applications.  
 Prerequisite: Mathematics 443, 435 or equivalent. (3-0-1)
- MATH 561. (4) **Decision theory and statistical inference**  
 The general statistical decision problem; game theory; theory of estimation and tests of hypotheses; sequential analysis.  
 Prerequisite: Mathematics 443, 435 (corequisite). (3-0-1)
- MATH 562. (4) **Distribution-free and rank-order statistics**  
 Distribution theory of order statistics; a detailed discussion of selected rank tests, optimality and efficiency of rank tests.  
 Prerequisite: Mathematics 443. (3-0-1)
- MATH 563. (4) **Analysis of Variance**  
 Models in experimental design, estimation of parameters, multiple comparisons, partitioning a sum of squares, analysis of covariance, robustness of tests.  
 Prerequisite: Mathematics 443, 333, 511 (corequisite). (3-0-1)
- MATH 570. (4) **Topics in numerical analysis**  
 Prerequisite: Mathematics 449 or equivalent. (2-2-0)
- MATH 571. (4) **Topics in Computing Science**  
 Topics selected from: programming languages; information organization and retrieval; simulation; combinatorics; machine learning and game playing; multi-programming and real time data processing.  
 Prerequisite: Mathematics 481 or equivalent. (2-2-0)
- MATH 581. (4) **Directed Studies** (3-0-1)
- MATH 585. (4) **Seminar** (3-0-1)
- MATH 599. (4-6) **Master's thesis**  
 The Department of Mathematics offers graduate programmes leading to the degrees of Master of Arts and Master of Science in Pure Mathematics, Applied Mathematics, Computer Science and Statistics.

# DEPARTMENT OF PHILOSOPHY

Kenneth W. Rankin, M.A., Ph.D. (*Edinburgh*), Professor and Head of the Department.

Howard J. N. Horsburgh, M.A. (*Glasgow*), B.Litt. (*Oxon.*), Professor.

Juan C. D'Alessio, B.A., M.A. (*Buenos Aires*), D.Phil. (*Oxon.*), Assistant Professor.

Ronald V. Kirby, B.A. (*Brit. Col.*), M.A., Ph.D. (*Calif.*), Assistant Professor.

Alan R. Drengson, B.A., M.A. (*Wash.*), Lecturer.

John Paul Graff, A.B. (*Yale*), M.A. (*Calif.*), Lecturer.

Richard K. Martin, B.A. (*Lehigh Univ.*), Lecturer.

John M. Michelsen, M.A. (*Wash.*), Lecturer.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

General—Nine units in courses in Philosophy numbered 300 or above with all prerequisites for such courses satisfied.

Major—Philosophy 100, 202, 300, 302, 306 or 308, three additional units in courses numbered 300 or higher, and three additional units in courses 400 or higher. (21 units).

Honours—Philosophy 100, 202, 300, 302, 306 or 308, 400, 499, three additional units in courses numbered 300 or higher, and six additional units in courses numbered 400 or higher. (30 units).

Honours candidates must maintain at least a B average in their courses in Philosophy.

## COURSES OFFERED

NOTE: Courses in the 100 and 200 series are recommended for the general student as well as for students intending to major in philosophy. Each of these courses may be taken by any registered student. Other courses in philosophy may be taken by satisfying the listed prerequisites *or* with the 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 prior to registration.

### PHIL 100. (3) **Introduction to Philosophy**

An investigation into such fundamental questions as "Am I free?", "Is there right and wrong?", "Does what I do matter?", "Is it reasonable for me to believe in God?", "Can any society be just?", "What, if anything, can I know?", and "Should I pursue happiness?". A major purpose of the course is to help students to reflect more effectively on their experience.

NOTE: This is a multi-sectioned course. Problems and approaches differ from section to section. One section, for instance, will provide an exposition of the development of thought throughout certain philosophically active periods. In the other sections questions such as those outlined are considered in greater detail and independence of historical context. (3-0; 3-0)

### PHIL 202. (3) **Elementary Logic**

A development of the logical techniques for handling arguments drawn from every day discourse and an investigation of key concepts involved by these techniques, e.g. argument, implication, validity, fallacy, meaning, truth, existence, quantity, relation, possibility and necessity. (3-0; 3-0)

### PHIL 211. (3) **Existentialism**

A selective study of the works of such leading existentialist thinkers as Kierkegaard, Jaspers, Heidegger, Sartre, Marcel, and Buber. (3-0; 3-0)

### PHIL 212. (3) **Philosophy of Religion**

An enquiry into the variety of religious experience, practice, and belief, dealing with such questions as: What is ecstasy? Are there higher states of consciousness?

What do mystical experiences have in common? What is their significance? Can they be induced? How do they affect a person's beliefs and practice? What is religious commitment? What are its moral and social implications? What is the relationship of religious belief to poetic metaphor and scientific explanation? What are the attributes of the gods proposed by man? Do any such beings exist? Can this be proven or disproven? If there is no God, is everything permissible? Why be religious?  
(3-0; 3-0)

PHIL 221. (1 1/2) **Philosophy of Natural Science**

An introductory survey of the subject matter, objectives, methods, and pre-suppositions of natural science. Discussion of how scientific knowledge is arrived at, how it is supported, and how it changes. First term only.  
(3-0; 0-0)

PHIL 223. (1 1/2) **Philosophy of the Social Sciences**

Problems raised by the enterprise of a science of man. Topics to be considered are: the notion of human action, values and social science, objectivity and ideology, social facts, social law and their reduction, theory construction, models, and measurement. Second term only.

Prerequisite: Philosophy 221, or permission of the Instructor. (0-0; 3-0)

PHIL 232. (1 1/2) **Social Ethics**

An examination of the individual in relation to society with particular emphasis upon his rights and obligations. Attention will be given to the diverse ideals of aristocracy, fascism, liberalism, socialism and democracy. Questions for consideration: What sort of social order is just? What sort of social action is right? First term only.  
(3-0; 0-0)

PHIL 233. (1 1/2) **The Philosophy of Education**

A philosophical analysis of educational concepts, especially those figuring in discussions of educational tasks and in the advocacy of educational policies. Attention will be given to questions of value after they have been sorted out from what are, in the ordinary sense, scientific questions. Readings will be drawn principally from contemporary writings. Second term only.  
(0-0; 3-0)

PHIL 242. (3) **Aesthetics**

An examination of principal theories concerning the nature of art, the creative process, aesthetic experience, and criticism.

Prerequisite: Philosophy 100 or Art 120, or permission of the Instructor.

(May not be offered 1970-71). ^ (3-0; 3-0)

PHIL 300. (3) **Plato and Aristotle**

A study of the origins and development of philosophic thought in Ancient Greece. Particular emphasis on the metaphysics and theories of knowledge of Plato and Aristotle through detailed examination of some of their major works.

Prerequisite: Philosophy 100, or permission of the Instructor. (3-0; 3-0)

PHIL 302. (3) **Moral Philosophy**

An inquiry into the nature of morality and the justification of moral judgements. Some main topics of moral philosophy will be discussed: e.g. moral disagreement, the role of reason in the resolution of moral conflicts, the relationship between responsibility and guilt, rights and duties, moral relativism vs. moral absolutism, the relationship between happiness and virtue, etc.

Prerequisite: Philosophy 100, or permission of the Instructor. (3-0; 3-0)

PHIL 306. (3) **The Rationalists**

An intensive study of the major writings of Descartes, Spinoza and Leibniz, with emphasis on their treatment of various epistemological and metaphysical issues. Works covered: Descartes' *Meditations*, *Discourse on Method* and *Principles of Philosophy*; Spinoza's *Ethics*; and Leibniz's *Monadology*, *Discourse on Metaphysics*, and assorted logical writings.

Prerequisite: Philosophy 100, or permission of the Instructor.

(Offered in 1970-71 and every second year). (3-0; 3-0)

PHIL 308. (3) **The Empiricists**

An intensive study of the major writings of Locke, Berkeley and Hume, with emphasis on their treatment of various epistemological and metaphysical issues. Works covered: Locke's *Essay on Human Understanding*; Berkeley's *Three Dialogues* and *Principles of Human Knowledge*; and Hume's *Treatise of Human Nature*.

Prerequisite: Philosophy 100, or permission of the Instructor. (3-0; 3-0)

PHIL 324. (3) **Philosophy of History**

Speculative and critical philosophies of history. Analysis of the systems of Vico, Hegel, Marx, Toynbee, Niebhur. The language of historical description. The uniqueness of historical events. The controversy about historical explanation. Problems about causes. Objectivity.

Prerequisite: Philosophy 100, History 200, or permission of the Instructor. (3-0; 3-0)

PHIL 326. (1½) **Selected Topics in Political Philosophy**

An examination of the philosophical doctrines and arguments involved in the justification of political decisions. An analysis of such fundamental concepts of political discourse as the following: the common good, authority, justice, natural law, natural rights, sovereignty. An examination of the relationship between the state and the individual. First term only.

Prerequisite: Philosophy 100 or Political Science 300, or permission of the Instructor. (3-0; 0-0)

PHIL 328. (1½) **Selected Topics in the Philosophy of Law**

An inquiry into the nature and function of law. Special attention will be given to the relationship between law and morality; the logic of legal concepts; the relationship between the law and justice; the justifiability of civil disobedience; the relationship between systems of law and the nature of social order. Second term only.

Prerequisite: Philosophy 100, or permission of the Instructor. (0-0; 3-0)

PHIL 332. (3) **Eastern Philosophy**

A study of basic texts and major philosophical systems of Hinduism, Buddhism, Confucianism, and Taoism.

Prerequisite: 6 units in Philosophy, or permission of the Instructor. (3-0; 3-0)

PHIL 334. (3) **Meaning and Language**

An examination of various accounts of meaning and the functions of language. Particular attention to be given to the logical atomists, the logical positivists, linguistic analysts such as the later Wittgenstein, Ryle, and Austin, and recent writings on structural analysis.

Prerequisites: Philosophy 100, 202, or permission of the Instructor. (3-0; 3-0)

PHIL 348. (1-3) **Directed Studies in the History of Philosophy**

Under the supervision of a staff member and with the approval of the Chairman of the Department.

Prerequisite: 6 units in Philosophy, or permission of the Instructor.

PHIL 399. (3) **Seminar in Philosophy**

Topic(s) to be selected at the initiative of instructor or students. (3-0; 3-0)

PHIL 400. (3) **Kant**

Intensive study of Kant's epistemology and metaphysics, principally as expressed in *The Critique of Pure Reason*.

Prerequisites: Philosophy 100, 306 or 308, and an additional 3 units in Philosophy, or permission of the Instructor. (3-0; 3-0)

PHIL 402. (3) **Advanced Logic**

Structure and properties of formal deductive systems. Axiomatic development of propositional and predicate calculi. Theory of classes. Problems of completeness, consistency, decidability, and independence.

Prerequisite: Philosophy 202 or Mathematics 332 or 333, or permission of the Instructor.

(Offered in 1970-71 and every second year). (3-0; 3-0)

PHIL 405. (3) **Nineteenth-Century Philosophy**

A detailed study of post-Kantian developments in Philosophy. These include the philosophy of Hegel, Fichte, Marx, and Schopenhauer; and in the British tradition, Bentham, Austin, Mill, and Spencer. The emphasis of the course will be announced at the beginning of the year.

Prerequisite: 6 units in Philosophy, or permission of the Instructor.

(May not be offered 1970-71). (3-0; 3-0)

PHIL 406. (3) **Wittgenstein**

Intensive study of the earlier and later writings of Wittgenstein, particularly the *Tractatus Logico-Philosophicus*, the *Blue and Brown Books*, and the *Philosophical Investigations*.

Prerequisites: Philosophy 100, 306, and an additional 3 units in Philosophy, or permission of the Instructor. (3-0; 3-0)

PHIL 408. (3) **Contemporary European Philosophy**

A study of some leading European philosophers of the 20th century, such as Husserl, Heidegger, Sartre, and Merleau-Ponty.

Prerequisite: 6 units in Philosophy, or permission of the Instructor. (3-0; 3-0)

PHIL 414. (3) **Philosophy of Mind**

An examination of theories of mind in its relation to the body — dualism, physicalism, behaviourism, functionalism — and of such basic psychological concepts as belief, desire, intention, voluntary action, emotion, imagination, feeling.

Prerequisites: Philosophy 100, 306 or 308, or permission of the Instructor.

(3-0; 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. First term only.

Prerequisite: 6 units in Philosophy, or permission of the Instructor.

(May not be offered 1970-71). ((3-0; 0-0)

PHIL 418. (1½) **Theory of Perception**

A study of such theories of perception as realism, representationalism, and phenomenalism. Second term only.

Prerequisite: 6 units in Philosophy, or permission of the Instructor.

(May not be offered 1970-71). (0-0; 3-0)

PHIL 432. (3) **Metaphysics**

An analysis of fundamental metaphysical concepts, including substance, quality, relation, causality, space, time, and the self.

Prerequisite: 6 units in Philosophy, or permission of the Instructor.

(May not be offered 1970-71). (3-0; 3-0)

PHIL 448. (1-3) **Directed Studies in Philosophical Topics**

Under the supervision of a staff member and with the approval of the Chairman of the Department.

Prerequisite: 9 units in Philosophy, or permission of the Instructor.

PHIL 499. (3) **Honours Seminar**

## DEPARTMENT OF PHYSICS

- Harry W. Dosso, B.A., M.Sc., Ph.D. (*Brit. Col.*), Professor and Head of the Department.
- John L. Climenhaga, M.A. (*Sask.*), Ph.D. (*Michigan*), Professor.
- R. Michael Pearce, B.Sc. (*McGill*), M.A., Ph.D. (*Brit. Col.*), Professor. (Leave of absence 1970-71).
- Walter M. Barss, M.A. (*Brit. Col.*), Ph.D. (*Purdue*), Associate Professor.
- John M. Dewey, B.Sc., Ph.D. (*London*), F.Inst.P., Associate Professor.
- Grenville R. Mason, B.A.Sc. (*Brit. Col.*), M.Eng. (*McMaster*), Ph.D. (*Alta.*), Associate Professor.
- Lyle P. Robertson, M.A., Ph.D. (*Brit. Col.*), Associate Professor.
- Harry M. Sullivan, M.Sc. (*McGill*), Ph.D. (*Sask.*), Associate Professor.
- John T. Weaver, B.Sc. (*Bristol*), M.Sc., Ph.D. (*Sask.*), A.Inst.P., Associate Professor.
- George A. Beer, B.A.Sc., M.Sc. (*Brit. Col.*), Ph.D. (*Sask.*), Assistant Professor.
- J. Anthony Burke, A.M., Ph.D. (*Harvard*), Assistant Professor (Astronomy).
- R. Montgomery Clements, M.A.Sc. (*Brit. Col.*), Ph.D. (*Sask.*), Assistant Professor.
- Fred I. Cooperstock, B.Sc. (*Man.*), Ph.D. (*Brown*), Assistant Professor.
- James P. Elliott, B.S. (*Ill. Inst. of Tech.*), Ph.D. (*Stanford*), Assistant Professor.
- Gerhart B. Friedmann, B.Sc., M.A. (*Madras*), Ph.D. (*Brit. Col.*), Assistant Professor.
- F. David A. Hartwick, B.Eng. (*McGill*), M.A., Ph.D. (*Tor.*), Assistant Professor (Astronomy).
- Donald E. Lobb, M.Sc., Ph.D. (*Sask.*), Assistant Professor.
- Charles E. Picciotto, M.A., Ph.D. (*Calif.*), Assistant Professor.
- Harbhajan S. Sandhu, B.A., M.Sc. (*Panjab*), Ph.D. (*Brit. Col.*), Assistant Professor.
- Colin D. Scarfe, M.Sc. (*Brit. Col.*), Ph.D. (*Cantab.*), Assistant Professor, (Astronomy).
- Jeremy B. Tatum, B.Sc. (*Bristol*), Ph.D. (*London*), Assistant Professor (Astronomy).
- Chi-Shiang Wu, B.S. (*Nat. Taiwan U.*), M.S., Ph.D. (*Western Reserve U.*), Assistant Professor.
- Roland Cobb, B.Sc. (*Brit. Col.*), Ph.D. (*Rochester*), Part-time Lecturer.
- Clarence C. Cook, B.A. (*Tor.*), M.Sc. (*Mich.*), LL.D. (*R.M.C.*), Part-time Lecturer.
- Kenneth C. Maclure, M.Sc., Ph.D. (*McGill*), Part-time Lecturer.
- Donald E. Stenton, B.Sc. (*Brit. Col.*), Senior Laboratory Instructor.
- Kenneth O. Wright, M.A. (*Tor.*), Ph.D. (*Michigan*), F.R.S.C. Director, Dominion Astro-Physical Observatory, Honorary Professor.

The Department offers opportunities for study leading to the M.Sc. and Ph.D. degrees. For information on the requirements for these, consult the calendar under *Faculty of Graduate Studies*.

The programmes and course descriptions for Astronomy follow those for Physics.

### PHYSICS UNDERGRADUATE PROGRAMMES

For a B.Sc. degree in Physics, students may take the General, the Major or the Honours Physics programme. For a B.A. degree, students may choose the General programme in Physics for one of their fields of concentration. For the selection of Physics courses for the B.Ed. degree, consult the calendar under *Faculty of Education*.

Students who have not decided between the Major and Honours programme are advised to select their first and second year courses to satisfy the Honours course requirements, which are somewhat more closely specified than for the other programmes.

Admission to the third and fourth years of the Honours programme requires the permission of the Department. Students considering the Honours programme will be expected to have, and maintain, at least second class standing. They should consult

the Department about the Honours programme as soon as possible, preferably before entering their second year.

Students who plan to take only one course in Physics, either to meet a calendar requirement or to acquire a wider understanding of the physical world, are advised to take Physics 103. All who propose to take further courses in Physics should take Physics 101 or 121, according to their qualifications.

Students in Physics or Astronomy programmes for the B.Sc. degree are encouraged to choose electives in non-science subjects. In particular, students contemplating graduate studies should note that many graduate schools require a reading knowledge of a language other than English.

The Physics Department requirements are listed below, according to year and programme. To take account of the varied qualifications with which students enter the Physics programmes, some of the early courses in each programme are provided in alternative sets: thus, some students will include Physics 101, 211 and 313 in their programmes, while others will include Physics 121 and 213. The latter set permits 3 units of more advanced courses to be included in the General and Major programmes without increasing their length. It also permits the third year of the Honours programme to include 3 units of electives within the limit of 18 units. Courses selected in addition to those specified in these programme lists must satisfy general calendar regulations for the degree desired.

#### FIRST YEAR

General	Major	Honours
Physics 101 or 121	Physics 101 or 121	Physics 101 or 121
Mathematics 130	Mathematics 130	Mathematics 130
		Chemistry 120 or 124

Physics 101 is required by students who have not obtained at least Second Class standing in B.C. Secondary School Physics 12 and Mathematics 12. In subsequent years they will normally take Physics 211 and 313. Those who have not obtained credit for B.C. Secondary School Physics 11, or equivalent, must register in Section 1 (5 lectures per week).

Physics 121 is restricted to students who have obtained at least Second Class standing in B.C. Secondary School Physics 12 and Mathematics 12 and have the consent of the Department.

Students entering with matriculation standing from outside B.C. should consult the Department of Physics before registering.

#### SECOND YEAR

General	Major	Honours
Physics 211 or 213	Physics 211 or 213	Physics 211 or 213
Physics 212	Physics 212	Physics 212
Mathematics 231	Mathematics 231	Mathematics 230
(or Mathematics 230 and Mathematics 232)	(or Mathematics 230 and Mathematics 232)	Mathematics 232

Physics 211 is required by students who have not obtained credit for Physics 121. They will normally omit Physics 213 and take Physics 313 in the third year.

Physics 213 should normally be taken in the second year by students who have obtained credit for Physics 121; however, it may be omitted in the second year (preferably not in the Honours Programme) and be replaced by Physics 313 taken in the third year.

In the General Programme only, students limited by their other programmes to taking no more than one Physics course in the second year may take Physics 211 in the second year and defer Physics 212 to the third year; however, Physics 212 should not be deferred if credit has been obtained for Physics 121.

The alternative Mathematics courses should be selected in consultation with the Physics Department. Students who may want to keep open the possibility of transferring to the Honours Programme or doing postgraduate study should note the advantage of taking Mathematics 230, 232 and 330, instead of Mathematics 231, 303 and 323, in the second and third years.

Students who have credit for B.C. Senior Matriculation or for first year at another university should consult the Department before registering.

### THIRD YEAR

General	Major	Honours
(Physics 313)	(Physics 313)	(Physics 313)
Physics 322	Physics 322	Physics 321
Mathematics 303 or 330 or 331	Mathematics 303 or 330 or 331	Physics 322
Mathematics 323 or 345	Mathematics 323 or 345	Physics 413
		Mathematics 330 or 331
		Mathematics 323 or 345

Physics 313 is required unless credit has been obtained for Physics 213.

In the General Programme, Physics 322 may be deferred to the fourth year, and must be so deferred if Physics 212 is being taken in the third year. Mathematics 323 or 345 may be deferred to the fourth year.

In the Major Programme, students who have received credit for Physics 213 may be permitted to take, in the third year, 3 units of Physics courses normally taken in the fourth year of this programme.

The alternative Mathematics courses should be selected in consultation with the Physics Department.

Third-year Honours students are invited to attend Physics 460, Physics Seminar.

### FOURTH YEAR

General	Major	Honours
Physics 412†	Physics 412†	Physics 410† and 420†
Physics 413	Physics 413	Physics 412† and 421†
Physics elective	Physics electives	Physics 422†
		Physics 423†
		Physics 429
		Physics electives
		Mathematics 410†

† 1½ units.

The Physics electives may, with the consent of the Department, include courses in Astronomy or in related fields outside the Department.

In the General Programme, students who have obtained credit for Physics 313 require only Physics 413, whereas those with credit for Physics 213 require Physics 413 and 3 additional units, normally the first-term course Physics 412† and any second-term elective for which they qualify, e.g. Physics 425†, 426† or 427†.

In the Major Programme, specified Physics courses and acceptable electives must comprise at least 15 units of third- and fourth-year courses. The electives are normally chosen from Physics 321, 410†, 425†, 426†, 427† and Astronomy courses (Physics 321 is recommended for qualified students who may contemplate further studies).

In the Honours Programme, the Physics electives comprise 4½ units. They normally include three second-term courses chosen from Physics 424†, 425†, 426†, 427†, Mathematics 412† and either Astronomy 400† or 401†.

Fourth-year Honours students are required to participate in Physics 460, Physics seminar, and are invited to attend Physics 560, Physics graduate seminar.

## PHYSICS COURSES OFFERED

Where *consent of the Department* is specified as a prerequisite, this consent must be obtained in writing from the Department Head or his nominee.

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.

### PHYS 101. [3] Elementary Physics

The basic physical concepts of mechanics, heat, sound, light, electricity and magnetism. Students who have not obtained credit for B.C. Secondary School Physics 11

or equivalent must register in Section 1, which has 5 lecture hours per week. Prerequisite: Mathematics 130 (may be taken concurrently).

Text: To be announced.

Drs. Beer, Cook, Cooperstock, Friedmann, Maclure, Mason and Picciotto.  
(3-3; 3-3)

**PHYS 103. (3) A Survey of Physics**

From Newton's mechanics to nuclear physics—a description of ideas, principles and their applications. This course is intended for students who wish to increase their understanding of science and the physical world as part of their cultural development. Credit cannot be obtained for both Physics 101 and Physics 103.

Text: Gamow and Cleveland, *Physics Foundations and Frontiers*.

Dr. Dewey. (3-3; 3-3)

**PHYS 121. (3) Mechanics**

Vectors, statics, kinematics, relative motion, Lorentz transformation, particle dynamics, momentum, angular momentum, energy, central forces, dynamics of a system of particles, collisions, many-particle systems, heat and temperature, equation of state of an ideal gas, moment of inertia, rigid-body dynamics, relativistic dynamics, high energy collisions, oscillating motion, gravitation. Laboratories on alternate weeks. Prerequisites: At least second-class standing in B.C. Secondary School Mathematics 12 and Physics 12, Mathematics 130 (may be taken concurrently) and consent of the Department.

Text: Alonso and Finn, *Fundamental University Physics*, Volume 1.

Dr. Weaver. (3-3\*; 3-3\*)

**PHYS 211. (3) Mechanics**

This course is similar in content to Physics 121 but the treatment assumes a background consistent with the listed prerequisites. Laboratories on alternate weeks. Prerequisites: Physics 101, Mathematics 231 (may be taken concurrently) or Mathematics 230 and 232 (both may be taken concurrently). Credit cannot be obtained for both Physics 121 and Physics 211.

Text: Alonso and Finn, *Fundamental University Physics*, Volume 1.

Drs. Elliott and Lobb. (3-3\*; 3-3\*)

**PHYS 212. (3) Electricity and Magnetism, Electronics, and Modern Physics**

Fundamentals of electricity and magnetism, introductory electronics and topics in modern physics. Laboratories on alternate weeks. Prerequisites: Physics 101 or 121, Mathematics 231 (may be taken concurrently), or Mathematics 230 and 232 (both may be taken concurrently).

Texts: Halliday and Resnick, *Physics*, Part II; Beiser, *Modern Physics*.

Drs. Sandhu, Sullivan and Wu. (3-3\*; 3-3\*)

**PHYS 213. (3) Optics, Wave Motion, Heat and Elementary Thermodynamics**

Optics (geometrical and physical), wave motion and, in the second term, heat and the elementary theory and applications of thermodynamics. Laboratories on alternate weeks. Prerequisites: Physics 121 or 211, Mathematics 231 (may be taken concurrently), or Mathematics 230 and 232 (both may be taken concurrently).

Text: To be announced.

Dr. Barss. (3-3\*; 3-3\*)

**PHYS 313. (3) Optics, Wave Motion, Heat and Thermodynamics**

Optics (geometrical and physical), wave motion, heat and the theory and applications of thermodynamics. Laboratories on alternate weeks. Prerequisites: Physics 121 or 211, Mathematics 231 or Mathematics 230 and 232. Credit cannot be obtained for both Physics 213 and Physics 313.

Text: To be announced.

Dr. Sandhu. (3-3\*; 3-3\*)

\*Laboratories on alternate weeks.

PHYS 321. (3) **Classical Mechanics**

Analytic mechanics of particles, rigid bodies, Lagrangian and Hamiltonian mechanics, potential functions, wave equation, modes of oscillation. Prerequisites: Physics 121 or 211, Mathematics 303 or 330 or 331 (may be taken concurrently), Mathematics 323 or 345 (may be taken concurrently), and consent of the Department.

Text: Symon, *Mechanics*.

Dr. Cooperstock.

(3-0; 3-0)

PHYS 322. (3) **Electricity and Magnetism**

Fundamentals of electricity and magnetism, basic circuit theory, and concepts of electric and magnetic fields leading up to Maxwell's equations. Laboratories on alternate weeks. Prerequisites: Physics 121 or 211, and 212, Mathematics 303 or 330 or 331 (may be taken concurrently).

Text: To be announced.

Dr. Lobb.

(3-3\*; 3-3\*)

PHYS 410. (1½) **Topics in Mathematical Physics I**

Cartesian tensors, with applications; elementary topics in functions of a complex variable applied to physical problems. First term only. Prerequisites: Physics 121 or 211, Mathematics 303 or 330 or 331, and Mathematics 323 or 345.

Text: Butkov, *Mathematical Physics* (which will also serve for Physics 420), or selected paperbacks, to be announced.

Dr. Weaver.

(3-0; 0-0)

PHYS 412. (1½) **Advanced Optics**

Advanced geometrical and physical optics; lenses, optical instruments, interference, diffraction, polarization, spectroscopy. First term only. Prerequisites: Physics 213 or 313, Mathematics 303 or 330 or 331 (may be taken concurrently).

Text: To be announced.

Drs. Barss and Friedmann.

(3-0; 0-0)

PHYS 413. (3) **Introductory Modern Physics**

The major phenomena in the field of atomic and nuclear physics. Prerequisites: Physics 212, Physics 213 or 313 (the latter may be taken concurrently); Mathematics 303 or 330 or 331 (any may be taken concurrently); Mathematics 323 or 345 (either may be taken concurrently).

Text: Weidner and Sells, *Elementary Modern Physics*.

Dr. Robertson.

(3-3; 3-3)

PHYS 420. (1½) **Topics in Mathematical Physics II**

Mathematical methods for physicists, with special emphasis on the solution of boundary value problems; contour integration, gamma function, asymptotic expansions, Fourier and Laplace transforms; generalized functions and Green's functions. Second term only. Prerequisites: Physics 410.

Text: Butkov, *Mathematical Physics*, or selected paperbacks, to be announced.

Dr. Weaver.

(0-0; 3-0)

PHYS 421. (1½) **Statistical Mechanics**

Boltzmann, Bose-Einstein and Fermi-Dirac statistics. Second term only. Prerequisites: Physics 213 or 313, Physics 321, Mathematics 330 or 331, Mathematics 323 or 345, and consent of the Department.

Text: Knuth, *Statistical Thermodynamics*.

Dr. Picciotto.

(0-0; 3-0)

PHYS 422. (1½) **Electromagnetic Theory**

Potential theory, Maxwell's equations, electromagnetic waves. First term only. Prerequisites: Physics 322, Mathematics 303 or 330 or 331, Mathematics 323 or 345, and consent of the Department.

\*Laboratories on alternate weeks.

Text: Corson and Lorrain, *Electromagnetic Fields and Waves*.

Dr. Clements.

(3-0; 0-0)

PHYS 423. (1 ½) **Introductory Quantum Mechanics**

Operator postulates, barrier penetration, harmonic oscillator, one-electron atom, angular momentum operators, spin. First term only. Prerequisites: Physics 321 and 413, Mathematics 330 or 331, Mathematics 323 or 345, Mathematics 410 (may be taken concurrently), and consent of Department.

Text: Eisberg, *Modern Physics*.

Dr. Dosso.

(3-0; 0-0)

PHYS 424. (1 ½) **Modern Physics**

Time-independent perturbation theory, identical particles, Fermi gas, multi-electron atoms, specific heat of solids, nuclear models, collision theory. Topics in nuclear, atomic and solid state physics. Second term only. Prerequisites: Physics 423, and consent of the Department.

Text: Eisberg, *Modern Physics*.

Dr. Wu.

(0-0; 3-0)

PHYS 425. (1 ½) **Electronics**

Electronic circuit theory with applications. Second term only. Prerequisites: Physics 322, Mathematics 303 or 330 or 331.

Text: Brophy, *Basic Electronics for Scientists*.

Dr. Clements.

(0-0; 3-0)

PHYS 426. (1 ½) **Fluid Mechanics**

Introduction to basic theory of flow, kinematics of flow, Navier-Stokes equations, boundary layers, turbulent flow, introduction to compressible flow. Second term only. Prerequisites: Physics 213 or 313, Mathematics 303 or 330 or 331 (may be taken concurrently) and Mathematics 323 or 345 (may be taken concurrently).

Text: Li and Lam, *Principles of Fluid Mechanics*.

Dr. Dewey.

(0-0; 3-0)

PHYS 427. (1 ½) **Geophysics**

Physics of the earth, including atmospheric studies and extra-terrestrial effects. Structure and composition of the earth, elementary seismology, and geomagnetism. Second term only. Prerequisites: Physics 322 (may be taken concurrently), Mathematics 303 or 330 or 331 (may be taken concurrently), and Mathematics 323 or 345 (may be taken concurrently).

Text: Howell, *Introduction to Geophysics*.

Dr. Sullivan.

(0-0; 3-0)

PHYS 429. (3) **Senior Laboratory and Theory of Measurement**

Advanced experiments including student projects. Instruction on experimental techniques and theory of measurement. Prerequisites: Physics 413, Physics 421, 422 and 423 (all three may be taken concurrently) and consent of the Department.

Text: One of: Melissinos, *Experimental Modern Physics*; Braddick, *The Physics of Experimental Methods*; or Mark and Olson, *Experiments of Modern Physics*.

Drs. Clements and Dewey.

(0-6; 0-6)

PHYS 460. (0) **Physics Seminar**

Talks by students, faculty, and outside speakers.

(2-0; 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. (2) **Quantum Mechanics**
- PHYS 501. (2) **Nuclear Physics**
- PHYS 502. (2) **Electromagnetic Theory**
- PHYS 503. (2) **Theory of Relativity**
- PHYS 504. (2) **Atomic and Molecular Spectroscopy**
- PHYS 505. (2) **Advanced Classical Mechanics**
- PHYS 510. (2) **Advanced Methods in Mathematical Physics**
- PHYS 511. (2) **Applied Topics in Nuclear Physics**
- PHYS 512. (2) **Upper Atmosphere Physics**
- PHYS 513. (2) **Cosmic Ray Physics**
- PHYS 514. (2) **Gas Dynamics**
- PHYS 515. (2) **Geomagnetism and Solar-terrestrial Relationships**
- PHYS 516. (2) **Acoustics**
- PHYS 517. (2) **Magnetism**
- PHYS 518. (2) **Plasma Physics**
- PHYS 519. (2) **Selected Topics in Geophysics**
- PHYS 560. (0) **Seminar**
- PHYS 580. (2) **Directed Studies**
- PHYS 599. (credit to be determined but normally in this Department 6 units) **M.Sc. Thesis**
- PHYS 600. (2) **Advanced Quantum Mechanics**
- PHYS 699. (credit to be determined) **Ph.D. Dissertation**

The thesis or dissertation requirement for advanced degrees (Physics 599 or 699) applies to all students in the department, both Physics and Astronomy.

## ASTRONOMY UNDERGRADUATE PROGRAMMES

Major and Honours Astronomy programmes are offered for the B.Sc. degree.

Students considering the Honours programme should consult the Physics Department before entering their second year. Admission to the third and fourth years of the Honours programme requires the permission of the Department. At least second class standing is required of all students entering or remaining in the Honours programme.

Students in Physics or Astronomy programmes for the B.Sc. degree are encouraged to choose electives in non-science subjects. In particular, students contemplating graduate studies should note that many graduate schools require a reading knowledge of a language other than English.

The first two years of the Major and Honours Astronomy programmes are the same as the corresponding Physics programmes, with the addition of Astronomy 200.

### THIRD AND FOURTH YEARS

#### Major

Mathematics 303 or 330 or 331  
 Mathematics 323 or 345  
 Physics 213 or 313  
 Physics 322  
 Physics 412†  
 Physics 413  
 Astronomy 300  
 Astronomy 400† or 401†  
 Astronomy 402

#### Honours

Mathematics 330 or 331  
 Mathematics 323 or 345  
 Physics 213 or 313  
 Physics 321  
 Physics 322  
 Physics 410† and 420†  
 Physics 412†  
 Physics 413  
 Physics 422† or 423†  
 Astronomy 300  
 Astronomy 402  
 Astronomy 429  
 Electives

† 1½ units

Students wishing to take senior Astronomy courses without having completed Astronomy 200 must obtain the consent of the Department, and may be required to pass a qualifying examination.

In the Honours programme, because of prerequisites, maximum latitude in the choice of fourth-year courses may be obtained by taking in the third year: Mathematics 330 or 331, Mathematics 323 or 345, Physics 321, 322 and 413; also Physics 313 if Physics 213 has not already been taken.

The electives are to be chosen in consultation with the Physics Department. They are Astronomy 400† or 401†, and one of Physics 421†, 424†, 425†, 426† and 427†.

Third year Honours students are invited and fourth year Honours students are required to attend Astronomy 460, Seminar.

## ASTRONOMY COURSES OFFERED

#### 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, cosmogony, space flight, and extra-terrestrial life. Practical and observational work will be included. Laboratories on alternate weeks.

Text: To be announced.

Dr. Burke.

(3-2\*; 3-2\*)

#### ASTR 200. (3) **General Astronomy**

Astronomical co-ordinate systems, time, the earth-moon system, the solar system, stellar distances, spectral classification, stellar evolution, variable stars, stellar motions, star clusters, interstellar medium, structure and rotation of the galaxy, external galaxies and cosmology. Prerequisites: Physics 101 or 121, Mathematics 130. Credit cannot be obtained for both Astronomy 120 and Astronomy 200.

Text: Motz and Duveen, *Essentials of Astronomy*.

Dr. Tatum.

(3-2; 3-2)

#### ASTR 300. (3) **Spherical and Dynamical Astronomy**

Spherical trigonometry; the measurement of time; the effects of refraction, aberration, and parallax on the apparent position of a heavenly body; introductory celestial mechanics; the two-body problem and its applications; perturbations and precession; stellar motions and galactic dynamics. Prerequisites: Astronomy 200 or the consent of the Department, Physics 121 or 211, Mathematics 303 or 330 or 331; Mathematics 323 or 345 and Physics 321 are recommended.

Texts: Smart, *Spherical Astronomy*; Mihalas and Routley, *Galactic Astronomy*.

Drs. Burke and Scarfe.

(3-0; 3-0)

\*Laboratories on alternate weeks.

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. Second term only. Prerequisites: Astronomy 200 or the consent of the Department, Physics 322, 413 (may be taken concurrently), Mathematics 303 or 330 or 331.

Text: Steinberg and Lequeux, *Radio Astronomy* (translated by Bracewell).

Dr. Burke.

(0-0; 3-0)

(Offered in 1970-71, not in 1971-72).

ASTR 401. (1½) **Modern Astronomy**

A variety of modern topics, such as solar physics, cosmology, rocket and satellite astronomy, radar astronomy. Second term only. Prerequisites: Astronomy 200 or the consent of the Department, Physics 413 (may be taken concurrently), Mathematics 303 or 330, or 331, and Mathematics 323 or 345.

(Not offered in 1970-71; to be offered in 1971-72).

(0-0; 3-0)

ASTR 402. (3) **Introduction to Astrophysics**

The observational data of astrophysics; stellar atmospheres and the production of stellar spectra; structure constitution, and evolution of the stars; interstellar matter. Prerequisites: Astronomy 200 or the consent of the Department, Physics 213 or 313, Physics 413 (may be taken concurrently), Mathematics 303 or 330 or 331, and Mathematics 323 or 345.

Text: Unsöld, *The New Cosmos*.

Dr. Hartwick.

(3-0; 3-0)

ASTR 429. (3) **Observational Astronomy**

Observational and practical work, directed reading. Normally open to Honours students only. Others by consent of the Department.

Members of the Department.

(0-6; 0-6)

ASTR 460. (0) **Astronomy Seminar**

Talks by students, faculty and outside speakers.

(2-0; 2-0)

ASTR 490. (1-3) **Directed Studies**

Students must obtain the consent of the Department before registering.

## ASTRONOMY GRADUATE COURSES

ASTR 500. (2) **Stellar Atmospheres**

ASTR 501. (2) **Stellar Structure and Evolution**

ASTR 502. (2) **Binary and Variable Stars**

ASTR 503. (2) **The Interstellar Medium**

ASTR 511. (2) **Advanced Topics in Astronomy**

ASTR 560. (0) **Seminar**

ASTR 580. (1-2) **Directed Studies**

The thesis requirement for advanced degrees (Physics 599 or 699) applies to all students in the department, both Physics and Astronomy.

# DEPARTMENT OF POLITICAL SCIENCE

Neil A. Swainson, B.A., B.Ed., M.A. (*Brit. Col.*), Associate Professor and Chairman of the Department.

Ronald I. Cheffins, B.A., LL.B. (*Brit. Col.*), LL.M. (*Yale*), Professor.

Edgar S. Efrat, B.A. (*Reed Coll.*), M.A., Ph.D. (*Texas*), Associate Professor

Howard L. Biddulph, B.S. (*Brigham Young*), M.A., Ph.D. (*Indiana*), Assistant Professor.

Richard J. Powers, B.A. (*New Mexico*), M.A., Ph.D. (*Claremont*), Assistant Professor.

Peter R. Robbins, B.A. (*Brit. Col.*), B.A. (*Cantab.*), Ph.D. (*London*), Assistant Professor.

Mark H. Sproule-Jones, B.Sc. (Econ.) (*London*), M.A., Ph.D. (*Indiana*), Assistant Professor.

Max S. Power, B.A. (*Colorado Coll.*), B.A. (*Oxford*), M.A., M.Phil. (*Yale*), Lecturer.

Norman J. Ruff, B.Sc. (Econ.), (*Southampton*), M.A. (*McMaster*), Lecturer.

James J. Gow, B.L., Ph.D., LL.D. (*Aberdeen*), Part-time Lecturer.

Lionel H. Laing, B.A. (*Brit. Col.*), M.A. (*Clark*), M.A., Ph.D. (*Harvard*), Visiting Professor.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

Third and Fourth Year students not enrolled in the general, major or honours programmes may take as a free elective any upper level course in Political Science for which no prerequisite or other restriction is specified.

General—A concentration in Political Science under the general programme requires the successful completion of Political Science 200 and any three courses numbered 300 or above. Political Science 200 should be completed before registration. In third or fourth year courses, but permission to take it and upper courses concurrently may be granted by the Department.

Major—The Major programme in Political Science requires the completion of Political Science 200. In addition, 15 upper division units are required, of which three must be *either* Political Science 300 *or* Political Science 301 and 302. These courses are to be selected from at least three of the Groups I-VI. Political Science 200 is generally considered to be a prerequisite for courses in the 300 and 400 series, although in some cases the Department may modify this requirement.

Honours—The Honours programme in Political Science is open to Third Year students who have maintained high standards in their general university work, and have received a grade of B or higher in Political Science 200, or have the consent of the Department. An overall B average in the Third Year is required to continue Honours in the Fourth Year.

Third and Fourth Year Honours students are required to attend and participate in the Departmental Seminar. Fourth Year Honours students are required to complete successfully a programme of directed research and graduating essay. (Political Science 499).

During the Third and Fourth Years, Honours students must take at least 21 units in Political Science, selected from courses numbered 300 and above. Nine of these must be Political Science 300 (or, with permission, 301 and 302), 307 and 499. Honours students must also select a minimum of three units of course work in each of at least two of the Groups II-VI.

All students are reminded that the Department supports Liberal Arts 305.

## COURSES OFFERED

### POLI 200. (3) Introduction to Political Science

A general introduction to the study of politics. The course is designed to acquaint the student with the nature of the political process, to generate an awareness of the world of politics, its problems and its variety, and to introduce the student to Poli-

tical Science as a discipline. Open to First Year students with the permission of the Department.

Three Sections: Dr. Biddulph, Mr. Power, Mr. Ruff. (3-0; 3-0)

#### GROUP I—POLITICAL THEORY

##### POLI 300. (3) **Problems in Political Philosophy**

An examination of persistent political problems and arguments, concepts and metaphors, from Plato to the present day—for example: social justice; political obligation; ideas of freedom; force, power and authority; common good and general will; natural right; social contract; political education. Emphasis will be placed more upon analysis and explication of the problems themselves than upon their historical context and development. In addition, methodological problems arising out of the study of 'classical' political texts will be discussed.

Student evaluation will be based upon oral presentations, two essays and one written examination.

Dr. Robbins.

(Offered annually). (3-0; 3-0)

##### POLI 301. (1½) **Ancient and Medieval Political Thought**

The political experience of the ancient and medieval periods of European history as reflected primarily in the writings of Plato, Aristotle, Cicero, Augustine, Thomas Aquinas and Marsilius of Padua. (This course cannot be taken for credit if credit has already been received for POLI 300).

Dr. Robbins. First term only.

(Not offered 1970-71; offered 1971-72). (3-0; 0-0)

##### POLI 302. (1½) **Political Thought from Machiavelli to Marx**

An examination of six major texts in the development of modern political thought. Some attention will also be paid to lesser known writings and to less commanding figures.

Prescribed reading: Machiavelli, *The Prince*; Hobbes, *Leviathan*; Locke, *Second Treatise of Government*; Rousseau, *The Social Contract*; Burke, *Reflections on the French Revolution*; Marx and Engels, *The Communist Manifesto*.

Student evaluation will be based upon one essay and one written examination. (This course cannot be taken for credit if credit has already been received for POLI 300.)

Dr. Robbins. First term only.

(Offered 1970-71; not offered 1971-72). (3-0; 0-0)

##### POLI 307. (3) **The Scope and Methods of Political Science**

The purpose of the course is twofold: (a) to acquaint the student with the activities of modern political scientists, in particular their attempts to devise empirical theories of politics, and the problems they face in undertaking any empirical research project; and (b) to afford the student an opportunity to conceptualize and experiment with a political problem area of interest to himself. Course obligations include one examination at Christmastime, and one paper due at the end of the Second Term. (Not recommended as a general elective).

Dr. Sproule-Jones.

(Offered annually). (3-0; 3-0)

##### POLI 400. (3) **Nineteenth Century Political Thought**

A close study of nineteenth century social and political thought, both as a basis for understanding contemporary ideologies and as a source of explanatory political ideas. The centre of gravity will be the thought of Hegel, Marx, J. S. Mill and T. H. Green. The major doctrines—conservatism, utilitarianism, positivism, liberalism, socialism, nationalism, social Darwinism and anarchism—will also be discussed.

Dr. Robbins.

(Not offered 1970-71; offered 1971-72). (3-0; 3-0)

**POLI 407. (3) Contemporary Political Thought**

An examination of the major twentieth century contributions to the development of normative political theory. Much of the material to be discussed is outside the confines of traditional political discourse and reflects the fragmented nature of contemporary political thought. Emphasis will be placed more upon the theoretical and philosophical than upon the doctrinal and ideological modes of political thought.

Prescribed reading: Nietzsche, *The Twilight of the Idols*; Freud, *Civilisation and Its Discontents*; Mannheim, *Ideology and Utopia*; Niebuhr, *Moral Man and Immoral Society*; Fromm, *Escape from Freedom*; Marcuse, *One-dimensional Man*; Lenin, *The State and Revolution*; Camus, *The Rebel*; Weldon, *The Vocabulary of Politics*; Bay, *The Structure of Freedom*.

Dr. Robbins.

(Offered 1970-71; not offered 1971-72).

(3-0; 3-0)

**POLI 408. (1 1/2) Communist Political Thought**

A topical analysis of the major contributions to political theory in Marxist-Leninist thought; comparative analysis of the evolution of official value systems in Communist countries; Marxist revisionism and intellectual dissent in political thought. (It is recommended that students have taken a previous course in political theory or in Communist studies.)

Dr. Biddulph. Second term only.

(Not offered 1970-71; offered 1971-72).

(0-0; 3-0)

**GROUP II — COMPARATIVE GOVERNMENT**

**POLI 310. (3) The Governments of the United Kingdom and United States**

Studies of British and American governments and politics — comparative analyses of the parliamentary and presidential systems, federal and unitary structures and related problems.

Drs. Efrat and Laing.

(Offered annually).

(3-0; 3-0)

**POLI 311. (3) Western European Government and Politics**

The political culture, political behaviour, parties and interest groups, governmental institutions and policy-making processes of Western European democracies will be studied in the context of comparative political analysis. Primary emphasis will be given France, the German Federal Republic, Italy and the United Kingdom.

Mr. Power.

(Offered annually).

(3-0; 3-0)

**POLI 312. (3) Communist Political Systems**

An analysis of governmental processes in Communist ruled political systems, with emphasis upon 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 systems.

Dr. Biddulph.

(Offered annually).

(3-0; 3-0)

**POLI 315. (1 1/2) 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.

Dr. Biddulph. First term only.

(Offered 1970-71; not offered 1971-72).

(3-0; 0-0)

**POLI 317 (formerly 411). (3) Politics of Developing Nations**

An examination of the current political development and the political processes in developing countries, with emphasis on Asia and Latin America. The course is

organized on a seminar basis; each participant is required to prepare a research report on a topic chosen in consultation with the instructor.

Dr. Efrat.

(Offered annually).

(3-0; 3-0)

**POLI 318 (formerly 410). (3) Government of Canada**

An introduction to the structures and processes of government in Canada. The course will include an examination of the social context and political culture, development of the constitutional framework, federal-provincial relationships, provincial and local government, the Crown, prime minister and cabinet, parliamentary structures and legislative process, legislative-executive relationships, the public service, organized groups, political participation, development and nature of the party system, party organization, parties in the political process and an overview of political development in Canada.

Mr. Ruff.

(Offered annually).

(3-0; 3-0)

**POLI 319. (1½) An Introduction to Comparative Federalism**

The origins of federalism, the theory of federalism, federal constitutions and politics; and federalism and constitutional change. Some case studies of twentieth-century federal experience.

Dr. Efrat. First term only.

(Offered annually)

(3-0; 0-0)

**POLI 417. (1½) Government and Politics in Sub-Saharan Africa**

An introduction to the politics of the African nation-states south of the Sahara. Particular attention is devoted to the comparative facets of governments, political ideologies, modernization, aid and trade, and Canadian involvement.

Dr. Efrat. Second term only.

(Offered annually).

(0-0; 3-0)

**POLI 418. (1½) Issues in Canadian Politics**

A study of contemporary issues in the Canadian political process with a primary focus on the formulation of public policy and party politics. The course will include a critical analysis of selected issues related to such topics as the Office of Prime Minister and executive organization, role of the bureaucracy, recruitment of policy-makers, executive-legislative relationships and parliamentary reform, party leadership, national party structures, party policies, and parties in the executive and legislative processes.

Mr. Ruff. First term only.

(Not offered 1970-71; offered 1971-72).

(3-0; 0-0)

**POLI 419. (1½) Issues in Canadian Federalism**

A study of the dynamics and contemporary problems of Canadian federalism. The course will survey the framework and development of the federal system and concentrate on an analysis of selected questions which currently confront the federal and provincial levels of government. Special attention will be given to such issues as regional disparity, finance, economic and social policy, cultural duality, human rights, the provinces and international relations, federal aspects of governmental institutions and the party system, and mechanisms of intergovernmental relations.

Mr. Ruff. Second term only.

(Offered 1970-71; not offered 1971-72).

(0-0; 3-0)

**GROUP III — PUBLIC LAW**

**POLI 320. (3) Constitutional Law**

An introduction to the basic problems of Canadian constitutional law; federalism; constitutional amendment; distribution of authority; judicial review; the protection of civil liberties; and related problems. The primary method of grading will be by written examinations at the end of the first and second terms.

Mr. Cheffins.

(Offered annually).

(3-0; 3-0)

**POLI 325. (1 ½) Law and Public Policy — Part I**

An introduction to the role of law in society with special emphasis on Canada. A description and analysis of the judicial structure in Canada and the processes of the judiciary in the English-speaking world, including such problems as the sources of law, the difficulties of fact finding, the role of the jury, and the use of precedent. The problems of order and legal change will be discussed with illustrations drawn from Canadian criminal law. There will be one written assignment and one formal examination at the end of the term.

Mr. Cheffins. First term only.

(Offered 1970-71). (3-0; 0-0)

**POLI 327. (1 ½) Law and Public Policy — Part II**

This course continues the examination of the role of law in society begun in Political Science 325. Particular jurisprudential topics considered include the nature and definition of justice and its relationship to the content and processes of law. The traditional schools of legal philosophy will be studied, and there will be an examination of the relationship between law and morals and the limits of effective legal action.

(Not open to students who have 3 units of credit in POLI 325).

Mr. Cheffins. Second term only.

(Not offered 1970-71). (0-0; 3-0)

**POLI 420. (3) Administrative Law**

Study of the relation between law and the administrative process; procedures and powers of administrative tribunals; and judicial and legislative control of administrative action. Prerequisite: Political Science 320 or 325, or the permission of the instructor.

Dr. Gow.

(Offered annually). (3-0; 3-0)

**POLI 427. (3) Jurisprudence**

Advanced study of contemporary jurisprudential theory including an examination of legal realism, natural law, positivism, sociological jurisprudence and recent studies in the field of judicial behaviour. Special emphasis will be placed on studying law as a social science and analyzing the relationship between law and politics. Prerequisite: Political Science 325 or a grade of "A-" or higher in Political Science 320, and the permission of the instructor.

Mr. Cheffins.

(Offered annually). (3-0; 3-0)

**GROUP IV — POLITICAL BEHAVIOUR**

**POLI 330. (1 ½) Public Opinion and Electoral Behaviour**

The course is designed to give the student a close familiarity with the key theoretical and research studies on (a) the factors underlying the formation of individual political opinions and the making of electoral decision; (b) the formation and effectiveness of party and candidate strategy for electoral purposes; and (c) the relation of elections to the political system. Course obligations will include extensive reading plus one paper.

Dr. Sproule-Jones. Second term only.

(Not offered 1970-71; offered 1971-72). (0-0; 3-0)

**POLI 331. (1 ½) Executive and Legislative Politics**

An analysis of the recruitment and behaviour of legislators and political executives. The emphasis will be on conceptual tests that relate normative theories of representation, responsible policy-making, and party government to empirical studies of legislative and executive behaviour in Canada, Britain, the United States and other western democracies.

Mr. Power. First term only.

(Not offered 1970-71; offered 1971-72). (3-0; 0-0)

**POLI 332. (1 1/2) Interest Groups and Parties**

This course is primarily a survey and analysis of the key theoretical and research studies on interest groups and political parties. Particular attention will be paid to the analysis of organizational structures and influence. Course obligations will include extensive reading plus one research paper. (Not open to students who have 3 units of credit in POLI 330).

Dr. Sproule-Jones. Second term only.  
(Offered 1970-71; not offered 1971-72).

(0-0; 3-0)

**POLI 435. (3) Political Decisions**

In formal terms, this course will apply non-market decision theory to the analysis of political institutions and public policies. In less formal terms, we shall examine the efficiency of political systems in meeting the demands of its citizens for certain public policies. The ultimate aim is to provide the student with a systematic approach to politics through which public actions or inactions can be appraised. Course obligations will include two papers and a book review.

Dr. Sproule-Jones.  
(Offered annually).

(3-0; 3-0)

**POLI 436. (1 1/2) Analytic Democratic Theory**

The various meanings given the term "democracy" will be explored. From these, three modern usages will be selected for intensive analysis: (1) democracy as the dispersion of influence, or polyarchy; (2) democracy as a balanced political system; and (3) democracy as majority rule.

Mr. Power. Second term only.  
(Offered 1970-71; not offered 1971-72).

(0-0; 3-0)

**GROUP V — INTERNATIONAL RELATIONS**

**POLI 340. (3) International Studies**

Seminar in the theory and practice of relations among 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.

Dr. Powers.  
(Offered annually).

(3-0; 3-0)

**POLI 342. (1 1/2) International Law**

An introductory seminar in the principles and practices of international law. The focus will be both historical and contemporary, and the emphasis will be on the political implications of international law. (Not open to students who have credit for POLI 341).

Dr. Laing. First term only.  
(Offered annually).

(3-0; 0-0)

**POLI 343. (1 1/2) International Organization**

An introductory seminar in the theory and development of international organizations. Primary attention will be devoted to the League of Nations and the United Nations; however, regional and subordinate intergovernmental organizations will be examined. (Not open to students who have credit in POLI 341).

Dr. Powers. Second term only.  
(Offered annually).

(0-0; 3-0)

**POLI 445. (3) Comparative Foreign Policy**

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.

Dr. Powers.  
(Offered annually).

(3-0; 3-0)

## GROUP VI — PUBLIC ADMINISTRATION

### POLI 350. (3) **Public Administration**

An introduction to the evolution of the administrative process in the English-speaking world; approaches to bureaucracy; the theory and practice of administrative decision-making; a review of substantive issues in budgeting, organizational structure, personnel administration; administrative power and responsibility. Two essays plus fortnightly colloquium sessions.

Mr. Swainson.

(Offered annually).

(3-0; 3-0)

### POLI 454. (1 ½) **Introduction to Local and Regional Government**

A seminar in the following topics: the theory of local government; a comparative study of the local and regional governments of the United Kingdom, France, the United States and Canada; power and politics in the local community; the public finance of local government; inter-governmental relationships; the local bureaucracy; current policy issues for local and regional governments.

Mr. Swainson. First term only.

(Offered annually).

(3-0; 0-0)

### POLI 455. (1 ½) **The Government and Politics of Metropolis**

A seminar in the following topics: the metropolitan community, models and types; the complexities of metropolitan government; current social and economic maladies; the need for and structural roads to integrated governmental action; integration via the marketplace; the politics of structural reform; metropolis and 'superior' levels of government; the secular city and the City of God. (Not open to students who have 3 units of credit in POLI 454).

Mr. Swainson. Second term only.

(Offered annually).

(0-0; 3-0)

## GROUP VII — HONOURS

### POLI 490 (formerly 480). (1-3) **Directed Reading**

Directed reading and/or research for Honours Students under the supervision of an available faculty member. Open to Majors only with the permission of the department.

### POLI 499 (formerly 490). (3) **Directed Research and Graduating Essay**

Individual direction for fourth-year Honours Students only.

# DEPARTMENT OF PSYCHOLOGY

- G. Alexander Milton, B.A. (*Western Wash.*), M.S. (*Oregon*), Ph.D. (*Stanford*), Professor and Chairman of Department.
- Alex Bavelas, B.A. (*Springfield*), M.A. (*Iowa*), Ph.D. (*M.I.T.*), Professor.
- William H. Gaddes, B.A., M.A. (*Brit. Col.*), Ph.D. (*Claremont*), Professor.
- Otfried Spreen, B.A. (*Bonn*), Dipl.-Psych., Ph.D. (*Freiburg*), Professor.
- Gordon Neville Hobson, M.A., Ph.D. (*Alta.*), Associate Professor. (Leave of absence 1970-71).
- Ronald A. Hoppe, A.B. (*Michigan*), M.A., Ph.D. (*Michigan State*), Associate Professor.
- Howard J. Simmons, B.Sc. (*M.I.T.*), Ph.D. (*Illinois*), Associate Professor.
- Charles W. Tolman, B.S., M.S., Ph.D. (*Wash.*), Associate Professor. (Leave of absence 1970-71).
- R. Leslie D. Wright, M.A. (*Brit. Col.*), Ph.D. (*Tor.*), Associate Professor.
- Pam Duncan, B.A. (*Wisconsin State*), M.A. (*Chicago*), Ph.D. (*Wisconsin*), Assistant Professor.
- Bram C. Goldwater, B.A. (*McGill*), M.A. (*Cornell*), Ph.D. (*Bowling Green*), Assistant Professor.
- Brian R. Little, B.A. (*U. of Vic.*), Ph.D. (*Calif.*), Assistant Professor.
- Richard B. May, B.A. (*Whitman*), M.A., Ph.D. (*Claremont*) Assistant Professor.
- Frank J. Spellacy, B.A. (*Western Wash.*), M.Sc. (*Oregon*), Ph.D. (*U. of Vic.*), Assistant Professor.
- H. Edward Tryk, B.A. (*San Jose State*), M.A., Ph.D. (*Oregon*), Assistant Professor.
- Bruce K. Alexander, B.A. (*Miami*), M.Sc., Ph.D. (*Wis.*), Visiting Assistant Professor.

## GENERAL, MAJOR AND HONOURS PROGRAMMES

Students planning a major in Psychology are strongly urged to seek preparation in Biology, Mathematics, Philosophy and the Social Sciences during the first and second years.

Several undergraduate programmes are offered by the Department of Psychology. The concentration in the General programme is designed to provide flexibility and a general background for students planning to enter other fields such as social work or journalism. The Honours programmes are recommended for students planning graduate work in scientific or professional Psychology. The Major programmes require a degree of specialization in the last two years, and may permit the student to proceed to graduate study or to professional or business careers if sufficiently high standing is obtained. A student taking any Major or Honours Psychology programme is encouraged to consult a member of the Department early in his academic career. The Department of Psychology recognizes the right of a student to demonstrate competence in any area of these programmes by passing an appropriate examination.

### FIRST AND SECOND YEARS

Ordinarily, Psychology 100 will be taken in the first year and either Psychology 200, or Psychology 220 will be taken in the second year. Psychology 100 and 200 or 220, are normally required as prerequisites for all upper level courses.

### THIRD AND FOURTH YEARS

General — Students seeking a General degree must complete a minimum of three upper level (third and fourth year) courses (nine units) during their third and fourth years.

Major B.A. — University regulations for a Bachelor of Arts degree require that the student completes a minimum of five Psychology courses (15 units) numbered 300 and above during his third and fourth years. Students planning to continue to Graduate School are strongly advised to take Psychology 300.

Major B.Sc. — University regulations for a Bachelor of Science degree require that the student completes a minimum of five Psychology courses (15 units) numbered 300 and above during his third and fourth years. Students planning to continue to Graduate School are strongly advised to take Psychology 300.

Honours — Students seeking Honours in Psychology should apply to the Honours Advisor of the Department. The programme requires a minimum of six Psychology courses (18 units) numbered 300 and above in the third and fourth years, with 300, 400 or 401 or 402, and 499 required, plus at least one course from each group (A and B).

**A**

Learning  
 Motivation  
 Perception  
 Human Neuropsychology  
 Physiological Psychology  
 Animal Behaviour

**B**

Personality  
 Social Psychology  
 Developmental Psych.  
 Experimental Psych.  
 Abnormal Psychology  
 Clinical Psychology

A 3.5 grade point average for all work and a 5.5 grade point average in Psychology are normally minimum requirements for an Honours degree.

Six units of outside electives are required in the Third and Fourth Years combined.

NOTE: It is always possible that some course changes may be made after the publication of the Calendar. Students planning their courses after April should request updated course descriptions from the Departmental secretary.

### COURSES OFFERED

**PSYC 100. (3) Contemporary Psychology**

A survey of the current status of selected problems in psychology including motivation, learning perception, brain processes, psychological testing, and applications to school, industry, and personal adjustment.

Members of the Department. (3-0; 3-0)

NOTE: Students wishing to register for 200 level courses please consult department office, Room 196, Cornett Building.

**PSYC 200. (3) General Psychology**

An examination of the subject matter, methods and attitudes of modern psychology in light of their historical development.

(Not offered 1970-71). (3-0; 3-0)

**PSYC 220. (3) Dynamics of Behaviour**

A study of empirical approaches to the understanding of human behaviour and some methods of its control. Prerequisite: Psychology 100 or permission of the instructor. (3-0; 3-0)

**PSYC 300. (3) Experimental Psychology**

Intensive development of statistical reasoning and methodology in the application of experimental procedure to various areas of psychology. Emphasis upon meaningful actual usage of such techniques in the planning, conduct, analysis, interpretation, and reporting of experiments by the class and individual students. Prerequisites: Psychology 200 or Psychology 220; or acceptable alternative qualifications as decided by instructor.

Dr. Wright. (2-3; 2-3)

**PSYC 311. (3) Learning**

A critical survey of the basic experimental findings and theories of the learning process. Group experiments with both animals and humans will be conducted.

Dr. May. (2-2; 2-2)

**PSYC 330. (3) Personality**

An examination of the theories and research dealing with personality development and change. The topics to be studied will include socialization, cognition, creativity, national character, maladjustment and self-actualization.

Dr. Little. (3-0; 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, language and communication and group processes. Each student prepares one paper each term.

Dr. Hoppe, Dr. Bavelas. (3-0; 3-0)

PSYC 334. (3) **Personnel Psychology**

Psychological theories and techniques applied to selection and management of personnel in business, industry, government and the military forces. Methods of interviewing, testing, counselling and executive development will be studied.

Dr. Milton. (3-0; 3-0)

PSYC 335. (3) **Developmental Psychology**

Psychological development; determiners of psychological growth; motor, emotional, social, intellectual, language and personality development. Implications for the guidance of psychological development are indicated.

Dr. Duncan, Dr. Milton. (3-0; 3-0)

PSYC 370. (LING 370) (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, language acquisition and language change, the pathology of linguistics behaviour, language and cognition. Students may be admitted at the discretion of the instructors and/or their Departments. Two term papers will be required.

Dr. Hoppe, Dr. Kess. (3-0; 3-0)

PSYC 400. (3) **Advanced Experimental Psychology**

Experimental design and statistical techniques are applied to problems in general experimental psychology. A review of research strategies and nonparametric statistics is followed by extensive treatment of analysis of variance. Individual experiments are carried out in two stages: pilot study first term, and a follow-up study in the second term. Formal written reports of each stage of the research project are required.

Dr. May. (2-2; 2-2)

PSYC 401. (3) **Psychometrics**

The application of quantitative methods to problems in applied psychology. Topics to be covered include the measurement of individual differences, scaling, correlational analysis, test construction, and research issues in psychological assessment. Individual research projects are carried out in two stages: a pilot study the first term, and a follow-up study in the second term. A formal written report of the student's completed research project is required.

Dr. Tryk. (3-0; 3-0)

PSYC 402. (3) **Experimental Social Psychology**

An examination of research and methodology in the area of social psychology. Individual research projects will be conducted. Prerequisite: Psychology 300, equivalent, or permission of the instructor.

Prescribed readings: Selected journal articles, Mills, J., *Experimental Social Psychology*.

Dr. Bavelas. (3-0; 2-2)

PSYC 411. (3) **Perception**

The experimental study of visual and auditory perception. Students are expected to conduct an experiment or prepare a term paper in the area of perception.

Dr. Spreen and Dr. Tryk. (2-2; 2-2)

PSYC 412. (3) **Special Problems in Psychology**

Independent study for the advanced student. Complete arrangements must be made with an instructor in the Department before registering.

PSYC 414. (3) **Motivation**

The basic concern is with human behaviour. Topics include instincts, relationship between perception and physiological changes, psychosomatic symptoms and

personality, emotionally motivated behaviour, motivation and learning theory. Students are encouraged to participate in course planning. Text similar to: Cofer and Appley (1964). No final Seminar discussions. Outside reading is fairly heavy but manageable. Psychology 300 and 311 are recommended as basic preparation.

Dr. Goldwater.

(3-0; 3-0)

**PSYC 415. (3) Human Neuropsychology**

The study of brain-behaviour relationships. The first term of the course meets jointly with Psychology 423 and is primarily concerned with the neurophysiological and neuroanatomical basis of behaviour. The second term focusses upon research and clinical studies in neuropsychology. Demonstrations of selected patients with cerebral lesions at the Royal Jubilee Hospital will be arranged during the second term. Students may not register for both Psychology 423 and this course. Biology 150 is recommended.

Dr. Gaddes, Dr. Peet, Dr. Hamdi, Dr. Simpson.

(2-2; 3-0)

**PSYC 423. (3) Physiological Psychology**

The study of the physiological bases of normal and disordered behaviour. The first term of this course, meeting jointly with Psychology 415, is concerned with the neurophysiological and neuroanatomical organization of the body. The second term is primarily concerned with experimental studies of the role of the nervous system and other organ system in determining behaviour. Students may not register for both Psychology 415 and this course. Biology 150 is recommended.

Dr. Simmons.

(2-2; 2-2)

**PSYC 430. (3) Abnormal Psychology**

Definitions and models of the behaviour disorders; study of behaviour disorders with regard to social attitude, origins, development, manifestations, assessment and treatment. Primary emphasis is on the behavioural approach to problems in abnormal psychology. Tentative structure of the course includes: one required term paper, each student to present a class report, regular take-home study quizzes, no formal final examination.

Texts: One text emphasizing the behavioural study of abnormal behaviour (e.g. B. Maher, *Principles of Psychopathology*, 1966), and one text emphasizing humanistic problems in this area (e.g. W. D. Nuokawa, *Human Values and Abnormal Behavior*, 1965).

Dr. Tryk.

(3-0; 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, lecturers and discussion groups, student presentation in class (depending on enrolment), unit examinations. Admission is open only to third- and fourth-year students. Prerequisite: Psychology 100 (or equivalent) and written consent of the department.

Text: Zax and Stricker, *The Study of Abnormal Behaviour*.

Dr. Duncan.

(3-0; 3-0)

**PSYC 434. (3) Animal Behaviour**

A study of the phylogeny, functions and processes of animal behaviour from both the field-descriptive and laboratory-experimental points of view. This course is given in association with Zoology 434 and students may not register for both courses. Prerequisite: Biology 150. Recommended: Psychology 300 or Biology 304.

Members of the Department.

(2-2; 2-2)

**PSYC 450. (3) Mental Deficiency**

A survey of research and theory in the field of mental subnormality. Open to non-psychology students in related fields. Prerequisite: Psychology 100 (or equivalent) and written consent of the department. Limited to 30 students.

Text: Robinson and Robinson, *The Mentally Retarded Child*.

Dr. Spellacy.

(3-0; 3-0)

**PSYC 499. (3) Honours Thesis**

Prerequisite: Honours standing.

## GRADUATE COURSES

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

- PSYC 501. (3) **Proseminar**
- PSYC 503. (1-6) **Practicum**
- PSYC 504. (1-6) **Individual Study in Research in Psychotherapy or Physiological Psychology**  
(in conjunction with P516 or P512)
- PSYC 505. (1 ½) **Animal Learning** (1st or 2nd term only)
- PSYC 506. (1 ½) **Human Learning** (1st or 2nd term only)
- PSYC 507. (1 ½) **Personality** (1st or 2nd term only)
- PSYC 508. (1 ½) **Motivation** (1st or 2nd term only)
- PSYC 509. (1 ½) **History of Psychology** (1st or 2nd term only)
- PSYC 510. (1 ½) **Theories of Psychology** (1st or 2nd term only)
- PSYC 511. (1 ½) **Comparative Psychology** (1st or 2nd term only)
- PSYC 512. (1 ½) **Physiological Psychology** (1st or 2nd term only)
- PSYC 513. (1 ½) **Sensory Psychology** (1st or 2nd term only)
- PSYC 514. (1 ½) **Perception** (1st or 2nd term only)
- PSYC 515. (1 ½) **Human Neuropsychology** (1st or 2nd term only)
- PSYC 516. (1 ½) **Psychotherapy** (1st or 2nd term only)
- PSYC 517. (1 ½) **Quantitative Methods** (1st or 2nd term only)
- PSYC 518. (1 ½) **Psychometric Methods** (1st or 2nd term only)
- PSYC 519. (1 ½) **Social Psychology** (1st or 2nd term only)
- PSYC 520. (1 ½) **Developmental Psychology** (1st or 2nd term only)
- PSYC 521. (1 ½) **Human Factors** (1st or 2nd term only)
- PSYC 522. (1 ½) **Personnel Psychology** (1st or 2nd term only)
- PSYC 523. (1 ½) **Abnormal Psychology** (1st or 2nd term only)
- PSYC 524. (1 ½) **Diagnostic Testing** (1st or 2nd term only)
- PSYC 525. (1 ½) **Learning Disorders**
- PSYC 570. (1-3) **Psycholinguistics**  
Offered in collaboration with the Department of Linguistics.
- PSYC 599. (3-6) **Thesis**
- PSYC 699. (3-15) **Ph.D. Dissertation**

# DEPARTMENT OF SLAVONIC AND ORIENTAL STUDIES

Terence M. Rickwood, B.A., Ph.D. (*Liverpool*), Assistant Professor and Head of the Department.

Michael M. Dane, B.A. (*Wash.*), M.A. (*Harvard*), Assistant Professor (Russian).

Zelimir Juricic, M.A. (*Brit. Col.*), Lecturer (Russian and Serbo-Croatian). (Leave of absence 1970-71).

Hsin-I Hsiao, B.A. (*Tunghai U.*), Lecturer (Chinese and Japanese).

Isabel Heaman, M.A. (*Oxon.*), Part-time Lecturer (Russian).

## GENERAL AND MAJOR PROGRAMMES

NOTE: All students planning to take a concentration in a General Programme or a Major in the Department of Slavonic and Oriental Studies must take English 200 and Linguistics 100 or 360.

Students wishing to take language courses at the Third and Fourth Year level are reminded that they must have the prerequisites of the first two years.

Students wishing to take Third and Fourth Year language courses to meet requirements for a B.A. degree must satisfy the Department that they have satisfactory standing in appropriate courses at the 200 level. The course numbered 302 must be taken in the Third Year.

Students specializing in Russian will find that they have sufficient electives to enable them to concentrate in a second field — for example, 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 Head will be happy to assist students with their selection of courses.

General — First Year: Russian 100; Second Year: Russian 200; Third and Fourth Years: Russian 300, 302 and 406.

Major — First Year: Russian 100; Second Year: Russian 200; Third and Fourth Years: Russian 300, 302, 406 and another six units at or above the 300 level.

Honours — Consult Head of the Department.

## COURSES OFFERED

### RUSS 100. (3) First Year Russian

Essential grammar, spoken and written drills, translation and composition, oral work in the language laboratory.

Texts: Stilman and Harkins, *Introductory Russian Grammar*; Pushkin, *Two Short Stories*.

Members of the Department. (4-1; 4-1)

### RUSS 200. (3) Second Year Russian

Completion of the grammar, intermediate translation and composition, conversational practice and selected literary readings.

Prerequisite: Completion of Russian 100 or its equivalent, or the permission of the instructor.

Texts: Stilman and Harkins, *Introductory Russian Grammar*; *Soviet Short Stories*.  
Mr. Dane. (3-1; 3-1)

### RUSS 300. (3) Third Year Russian

Readings from literary texts.

Prerequisite: Completion of Russian 200.

Texts: L. Tolstoy, *Detstvo*; A. Chekhov, *Shest' Rasskazov*; K. Paustovsky, *Short Stories*.

Mrs. Heaman. (3-0; 3-0)

**RUSS 302. (3) Intermediate Composition and Stylistics**

Prerequisite: Completion of Russian 200.

Texts: Borrás and Christian, *Russian Syntax*; Borrás and Christian, *Russian Prose Composition*; P. Waddington, *Advanced Translation From Russian Prose*.

Dr. Rickwood.

(3-0; 3-0)

**RUSS 306. (3) Russian Literature in Translation**

(Not offered 1970-71, offered 1971-72).

(3-0; 3-0)

**RUSS 390. (3) Russian for Scientists**

Rapid survey of grammar; reading of modern Soviet scientific journals.

Prerequisite: Open to all students. (Students who have passed Russian 100 cannot receive credit for this course).

Text: Dennis Ward, *Russian for Scientists*.

Mr. Dane.

(3-0; 3-0)

**RUSS 400. (3) History of the Russian Language**

Lectures on the cultural history of the Russian language and its linguistic evolution. This course will be conducted in Russian.

Prerequisite: Completion of Russian 300.

Texts: P. Chernykh, *Istoricheskaya Grammatika Russkogo Yazyka*; N. Gudzii, *Khrestomatiya Po Drevnei Russkoi Literature XI-XVII Vekov*.

Mr. Dane.

(3-0; 3-0)

**\*RUSS 401. (3) Russian Literature since 1917 (in translation)**

A survey of Soviet literature from the Revolution to the present day. Essays and other assignments will be set regularly.

Prerequisite: Open to all students.

Texts: To be announced.

Members of the Department.

(3-0; 3-0)

**\*RUSS 402. (3) History of Russian Drama**

(Not offered 1970-71, offered 1971-72).

(3-0; 3-0)

**\*RUSS 403. (3) Dostoevsky and Tolstoy**

The major works of these writers will be studied in English against the background of their lives and times. Essays will be set periodically.

Prerequisite: Open to all students.

Texts: To be announced.

Dr. Rickwood.

(3-0; 3-0)

**RUSS 406. (3) Advanced Composition and Stylistics**

Prerequisite: Completion of Russian 302.

Texts: Borrás and Christian, *Russian Prose Composition*; P. Waddington, *Advanced Translation from Russian Prose*; Yurii Kazakov, *Selected Short Stories*.

Dr. Rickwood.

(3-0; 3-0)

**RUSS 430. (3) Directed Reading Course**

(3-0; 3-0)

\*NOTE: Students taking one of these courses as part of a major in Russian must have Russian 200 as a prerequisite and must take a fourth lecture hour (in Russian).

**SERBO-CROATIAN**

**SERB 300. (3) First Year Serbo-Croatian**

Introduction to the literary language of Yugoslavia. Essential grammar, spoken and written drills; elementary reading in Yugoslav prose and poetry.

Prerequisite: Completion of 200 level course in a foreign language or its equivalent, or the permission of the instructor.

Texts: Javarek, Vera, *Serbo-Croatian Prose and Verse*; Javarek & Sudjic, *Serbo-Croat*; Kadic, *Croatian Reader*.

Members of the Department.

(3-0; 3-0)

#### JAPANESE

##### JAPA 100. (3) **First Year Japanese**

First introductory course in the Japanese language (romanized approach). Japanese letters will be introduced in the second term.

Text: Niwa and Matsuda, *Basic Japanese for College students*.

Mrs. Warkentyne.

(4-1; 4-1)

##### JAPA 200. (3) **Second Year Japanese**

Sequence to the preceding first year Japanese course, aimed at reading and writing Japanese letters and Chinese characters, as well as conversational practice.

Prerequisite: Completion of Japanese 100 or its equivalent.

Texts: Niwa and Matsuda, *Basic Japanese for College Students*; Hibbert and Itasaka, *Modern Japanese Reader* (2 vols.).

Mrs. Warkentyne.

(4-1; 4-1)

#### CHINESE

##### CHIN 100. (3) **First Year Chinese**

Introductory course in modern Chinese.

Text: DeFrancis, *Beginning Chinese*; DeFrancis, *Character Text for Beginning Chinese*.

Mr. Hsiao.

(4-1; 4-1)

# SOCIAL WORK

## COURSES OFFERED

### SW 400. (3) **Social Work**

Introduction to the philosophy, concepts, and practice of social work in modern society. (3-0; 3-0)

This course is a required part of the B.A. with Major in Social Welfare but is open as an elective to students in Arts and Science.

*Faculty of Education*

# FACULTY OF EDUCATION

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## FACULTY OF EDUCATION

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- John A. Downing, B.A. (*Birkbeck Coll.*), Ph.D. (*London*), Professor.
- Hugh E. Farquhar, M.A. (*Brit. Col.*), Ph.D. (*Alta.*), Professor and Director of Summer Session.
- Arthur Kratzmann, B.Ed. (*Sask.*), M.Ed. (*Alta.*), Ph.D. (*Chicago*), Professor and Assistant to the Dean for Administrative and Supportive Services.
- Geoffrey P. Mason, M.A. (*Brit. Col.*), Ph.D. (*Wash. State*), Professor.
- Robert D. Armstrong, B.Ed., B.A., M.Ed. (*Alta.*), Ed.D. (*Calif.*), Associate Professor.
- J. Douglas Ayers, B.A., B.Ed. (*Brit. Col.*), Ph.D. (*Tor.*), Associate Professor.
- David J. Chabassol, B.A., B.Ed. (*Acadia*), M.Ed. (*Tor.*), Ph.D. (*Alta.*), Associate Professor.
- Mrs. Kathleen M. Christie, B.A. (*Brit. Col.*), M.A. (*Calif.*), Associate Professor.
- Franklin E. Churchley, A.R.C.T., L.R.C.T., B.Mus. (*Tor.*), M.A., Ed.D. (*Columbia*), Associate Professor.
- Miss Jean D. Dey, B.Ed., M.Ed. (*Alta.*), Ed.D. (*Calif.*), Associate Professor.
- John D. Eckerson, B.S., M.A. (*Wash.*), Ph.D. (*Oregon*), Associate Professor.
- Charles G. Galloway, B.A. (*Cent. Wash. State Coll.*), M.A. (*Harvard*), Ph.D. (*Calif.*), Associate Professor.
- Cary F. Goulson, M.A. (*Brit. Col.*), Ed.D. (*Tor.*), Associate Professor.
- Edgar B. Horne, B.A.Sc., B.A., M.A. (*Brit. Col.*), Ph.D. (*Illinois*), Associate Professor.
- A. Richard King, B.A. (*Western Wash. Coll.*), Ph.D. (*Stanford*), Associate Professor.
- Fred L. Martens, B.A., B.Ed. (*Brit. Col.*), M.Sc. in P.E. (*Wash.*), Ph.D. (*Oregon*), Associate Professor.
- Richard H. J. Monk, B.A. (*Brit. Col.*), M.Ed., Ph.D. (*Wash.*), Associate Professor.
- Robert E. Myers, A.B. (*Calif.*), M.A. (*Reed Coll.*), Ed.D. (*Georgia*), Associate Professor.
- Edward E. Owen, B.A., M.A. (*Auckland*), Associate Professor.
- R. Vance Peavy, B.A., M.A. (*Colorado State Coll.*), D.Ed. (*Oregon*), Associate Professor.
- Robert D. Bell, B.A. (P.E.) (*Sask.*), M.A., Ph.D. (*Oregon*), Assistant Professor and Director of Athletics.
- Ian L. Bradley, B.Ed. (*Brit. Col.*), M.Ed. (*West Wash. St.*), Ed.D. (*Brit. Col.*), Visiting Assistant Professor.
- John C. Cawood, B.Ed. (*Brit. Col.*), Assistant Professor.
- Mrs. Lynette Y. C. Chang, B.Ed., M.Ed. (*Hawaii*), Ph.D. (*Minnesota*), Assistant Professor.
- Martin L. Collis, Dip. P.E. (*Loughborough*), M.S. (*Idaho*), Assistant Professor.
- William K. Cross, B.Ed. (*Brit. Col.*), M.A. (*Wash. State*), Assistant Professor. (Leave of absence 1970-71).
- Peter O. Evanechko, B.Ed., M.Ed., Ph.D. (*Alta.*), Assistant Professor.
- John F. Hall, A.B., A.M. (*Stanford*), M.S. (*Oregon State*), Assistant Professor.
- Miss Norma J. Hawkes, B.A., M.Ed. (*Brit. Col.*), D.Ed. (*Oregon*), Assistant Professor.
- Mrs. Maureen C. Hibberson, B.P.E. (*Brit. Col.*), M.A. (*Oregon*), Assistant Professor.
- Christopher E. Hodgkinson, B.Sc. (Econ.) (*London*), M.Ed., Ed.D. (*Brit. Col.*), Assistant Professor.
- Valdimar K. Johnson, B.A. (*Pacific Luth.*), M.A. (*Calif.*), Assistant Professor.
- Donald W. Knowles, B.A., B.Ed., M.Ed., Ph.D. (*Alta.*), Assistant Professor.
- Mrs. Norma I. Mickelson, B.Ed. (*Brit. Col. - Vic. Coll.*), M.A. (*U. Vic.*) Assistant Professor. (Leave of absence — Sept. 1 to Dec. 31, 1970).

Walter Muir, B.Ed., M.Ed. (*Alta.*), Assistant Professor.  
 Lloyd O. Ollila, B.S., M.A. (*Minnesota*), Assistant Professor.  
 James H. Olson, B.S., M.A. (*Minnesota*), Assistant Professor.  
 Roger A. Ruth, B.S., M.S. (*Kansas State Teachers Coll. Emporia*), Assistant Professor.  
 John J. Sheppy, B.A., M.Ed. (*Brit. Col.*), Assistant Professor. (Leave of absence 1970-71).  
 Mrs. Marion A. Small, B.Ed. (*Brit. Col.*), M.Ed. (*Western Wash. State Coll.*), Assistant Professor.  
 Robert Swailes, B.S.A. (*Man.*), M.Ed. (*Brit. Col.*), Assistant Professor.  
 Hugh Taylor, B.A. (*Brit. Col.*), M.Ed. (*Oregon State*), Ed.D. (*Wash. State*), Assistant Professor.  
 Joseph W. Thomson, B.A. (*Trenton State Coll.*), M.A., Ph.D. (*Illinois*), Assistant Professor.  
 Henry G. Timko, B.S. (*Kutztown State Coll.*), M.A., Ed.D. (*Illinois*), Assistant Professor.  
 Beverly A. Timmons, B.A. (*Chico State Coll.*), M.S. (*Oregon*), Assistant Professor.  
 Ronald E. Tinney, B.A. (*Brit. Col.*), Ph.D. (*Minnesota*), Assistant Professor.  
 James H. Vance, B.Sc. (*Alta.*), M.A. (*Wash.*), Assistant Professor.  
 Carl R. Viesti, Jr., B.A. (*Catholic U. of America*), M.S. (*Bridgeport*), Assistant Professor.  
 Ian S. Walker, B.Sc., Ph.D. (*Adelaide*), Dip.Ed. (*Melbourne*), Assistant Professor.  
 Richard L. Williams, B.S. (*St. Cloud State Coll.*), M.S. (*Cornell*), Assistant Professor.  
 Mrs. R. Anne McLaughlin, B.Com. (*Brit. Col.*), Senior Lecturer.  
 Gerald A. Carr, B.A., B.S., M.S. (*Calif.*), Lecturer.  
 David Docherty, B.Sc., M.Sc. (*Oregon*), Lecturer.  
 Geoffrey S. Hodder, B.Ed. (*U. of Vic.*), Lecturer.  
 Norman F. E. Olenick, B.P.E., M.P.E. (*Brit. Col.*), Lecturer.  
 Leslie H. Peake, Dip. in P.E. (*St. Paul's Coll.*), Lecturer.  
 Peter Shostak, B.Ed. (*Alta.*), Lecturer.  
 Miss Margery M. Vaughan, L.R.S.M. (*Royal School of Music*), Mus.G. (*West Ont.*), B.Mus. (*Tor.*), M.Litt. (*Durham*), Lecturer.

#### PROGRAMMES AND DEGREES OFFERED BY THE FACULTY OF EDUCATION

The Faculty of Education offers programmes leading to degrees in Education awarded by the University and to teaching certificates issued by the Provincial Department of Education. Two degrees are approved in the Faculty of Education:

- A. a five-year BACHELOR OF EDUCATION, preparing both elementary and secondary teachers, and
- B. a four-year BACHELOR OF EDUCATION (ELEMENTARY), preparing elementary teachers only.

The Master of Arts and Doctor of Philosophy degrees with specialization in Education are offered through the Faculty of Graduate Studies; information about these degrees may be found on page 294 of this Calendar. Enquiries concerning graduate study in Education should be directed to the Dean of the Faculty of Graduate Studies or to the Graduate Advisor of the Faculty of Education.

#### A. THE BACHELOR OF EDUCATION DEGREE:

A five-year programme (normally requiring 75½ units of course work) following completion of Grade 12 on the Academic-Technical programme, and leading to the interim Professional Certificate.

##### A1. Elementary Curriculum (See A1, p. 224)

In this programme the professional year is Year Three. The student will select two teaching areas from the list on pages 226 - 228 of this Calendar. Upon completion of the first three years the student may apply to the Department of Education for a teaching certificate.

**A2. Secondary Curriculum (See A2, p. 228)**

In this programme the professional year is Year Five; therefore the student must complete the full programme before being eligible to apply for a teaching certificate. A slightly modified programme is provided for students who have completed elementary professional training but who wish to continue in the secondary field. Details are shown on page 230.

Normally this is a 75-unit degree with 15 units in each of five years but students entering after one or two years at a district or regional college might find it necessary to complete extra work in order to meet the requirements of the degree.

**B. THE BACHELOR OF EDUCATION (ELEMENTARY) DEGREE:**

As this programme is being phased out (by Senate approval in 1968), a candidate, in order to be admissible in 1970-71, must have completed the requirements for admission to Year Two, the Professional Year. The degree programme must be completed by the summer of 1977 otherwise the candidate will be required to transfer to the five-year Bachelor of Education (Elementary Curriculum) degree programme. In so doing, credit for all courses previously completed cannot be assured.

Beginning in 1971-72, students who have completed professional training and fifteen units of acceptable first year work may be accepted on the four-year programme but will be required to complete the degree by 1977.

This four-year programme normally requires 66-69 units following completion of Grade 12 on the Academic-Technical programme, and leads to the interim Professional Certificate (see B, p. 234).

The student may begin teaching on an interim basis after successfully completing the professional year in this programme or he may continue with further work, leading to certification and to the degree, before beginning to teach.

The student may, at any time, request permission to transfer to the five-year elementary programme; this may be possible without loss of credit. However, once having transferred to the five-year programme and having obtained certification based on work completed in Year Three, he must remain on that programme.

Similarly, the student may request permission to transfer to the secondary degree programme. If the courses of Year One have been carefully chosen, this may be done without loss of credit. Students who have failed their previous year's work may not transfer to this programme.

**C. TRANSITIONAL (PROFESSIONAL YEAR) PROGRAMMES FOR STUDENTS ENTERING AN ELEMENTARY DEGREE PROGRAMME FROM OTHER FACULTIES, REGIONAL OR DISTRICT COLLEGES, OR BRITISH COLUMBIA GRADE XIII.**

Students who have completed one or more years of work through Grade 13 (B.C.), regional or district colleges, or other faculties, may wish to enrol immediately in a year of elementary professional training in the Faculty of Education. Provided such students meet the minimum requirements for admission (see page 220) they may be accepted into either the four- or five-year programme in 1970-71. These students will be required to meet the core and teaching area requirements of their desired programme as specified by the Faculty.

Special professional years (as Transitional Programmes) are designed for these students. Details of the five-year degree Transitional Programme are found on page 226 and of the four-year degree on page 235.

**D. DIPLOMA PROGRAMMES FOR GRADUATES:**

**D1. Elementary Curriculum (See D1, p. 235)**

A one-year professional programme for graduates of a faculty other than Education who are interested in elementary school teaching and who can meet the requirements for admission.

**D2. Secondary Curriculum (See D2, p. 235)**

A one-year professional programme for graduates of a faculty other than Education who are interested in secondary school teaching and who can meet the requirements for admission.

Upon successful completion of either programme D1 or D2 candidates will be eligible to apply for an interim Professional Certificate.

## E. INTERNSHIP PROGRAMMES:

### E1. SECONDARY

A teaching internship programme for the preparation of secondary teachers will be offered on a continuing basis provided that sufficient acceptable applications are received. This programme is offered to those who meet admission requirements for the professional year of the regular Bachelor of Education (Secondary Curriculum) programme or the Secondary Diploma programme. Instruction will begin in May each year in schools in the Victoria area. Following a further two months of preparation at the University in July and August, successful candidates will be employed as full-time, paid intern teachers in co-operating school districts and will be supervised by University instructors. Upon successful completion of the following summer session at the University, candidates will be eligible to apply for an interim Professional Certificate.

Prospective candidates may write to the University Admissions Office for further information and application forms.

### E2. ELEMENTARY

During the session 1970-71, in co-operation with the Prince George School District, the University will offer an elementary internship programme preparing students for a teaching certificate by providing a year of classroom experience in Prince George schools and two summer sessions on the Victoria campus. This programme is designed primarily for students in the Faculty of Education who have completed the first two years of the five-year Bachelor of Education (Elementary Curriculum) degree and who would like to spend their professional year as interns.

During May and June students will be engaged in a practicum in Prince George schools which will prepare them for their assignments in the Fall. They will then spend two months on the University of Victoria campus, after which they will return to Prince George for the internship year. During the school year special training sessions and workshops will be arranged on Saturdays. The interns are paid for their services to the District. At the end of the internship year the students will return to Victoria to complete their professional courses during the period of the summer session. After successful completion of the programme the intern will be eligible to apply to the Department of Education for a British Columbia interim teaching certificate and will be free to accept a teaching position anywhere in the Province.

Students will be contacted during their Education 297 seminars and given details on application procedures if such a programme is to be offered in 1971-72.

Further enquiries should be directed to the Co-Director of Student Teaching (Elementary).

## TEACHER CERTIFICATION

The Public Schools Act of British Columbia requires that any person employed as a teacher in any public school hold a teacher's certificate issued by the Provincial Department of Education. Sole authority to issue such teaching certificates rests with the Department of Education, Parliament Buildings, Victoria, and all enquiries concerning certification must be directed to the Registrar of that Department. A degree or a transcript of credit from a university or teacher's college is not a certificate of authority to teach.

The following general information concerning teacher certification is given as a guide only for the benefit of students undertaking training at the University and is subject to any changes which may be issued by the Department of Education subsequent to the publication of this Calendar:

Under changes in regulations governing teacher certification which became effective after April 1, 1968, there are two types of permanent teaching certificates. These establish the minimum permanent certificate to be granted and do not attempt to grade within the general classifications or to set upper limits, and are as follows:

- (1) *Standard Teaching Certificate* — to be awarded to those who have successfully completed an acceptable three-year programme in the Faculty of Education

beyond secondary school graduation and including both academic and professional studies;

- (2) *Professional Teaching Certificate* — to be awarded to all applicants who have successfully completed an acceptable four- or five-year programme of professional and academic studies in the Faculty of Education normally culminating in a degree.

The *Teaching Licence* may be granted to an applicant who provides evidence of successful completion of an acceptable programme of academic and professional studies but who does not yet qualify for the Standard Certificate. This licence is valid for a four-year period only, although it may be renewed at the discretion of the Department of Education upon submission of evidence satisfactory to that Department.

Candidates with an acceptable year of professional training may proceed to the Bachelor of Arts or other appropriate degree in another faculty and normally qualify as follows:

- Full First Year — Teaching Licence
- Full Second Year — Standard Certificate
- Full Third Year — Professional Certificate

All initial teaching certificates issued are interim only and are normally valid for four years. For permanent certification, the teacher is required to have completed two years of recent satisfactory teaching in British Columbia schools and to receive the recommendation of the District Superintendent and the approval of the Department of Education. An interim certificate which has expired is no longer valid unless reinstated at the discretion of the Department of Education through extension of the period of validity.

#### APPLICATION FOR TEACHER CERTIFICATION

The initial application for a teaching certificate by a candidate who has completed professional training at the University must be made on a form provided by the Department of Education which is sent out with a student's Statement of Grades at the end of the Winter Session. This form, duly completed by the applicant and accompanied by a registration fee of \$5.00 and birth certificate, must be forwarded direct to the *Registrar of the Department of Education*, Parliament Buildings, Victoria. It is also the responsibility of the teacher to make application to the Department of Education for any change in certification, including permanent certification, or for extension of interim certification.

As soon as possible after the conclusion of each Winter Session, the University reports to the Department of Education on the academic record of each student registered in the Faculty of Education who has successfully completed professional training. This report gives the Department of Education the necessary information upon which to base its assessment of the candidate's eligibility for the teaching credential for which he has applied. The type of certificate issued is dependent upon the standing within the University in relation to the degree towards which the candidate is working, as well as basic professional training, and will be in terms of enabling regulations of the Provincial Department of Education in force at the time of issue. A person who has previously completed basic professional training but who has been registered in another faculty during the Winter Session and plans to apply to the Department of Education for a change of certification, must request the Registrar of the University to send a statement of standing to that Department.

#### PROVISIONS FOR TEACHERS WITH CERTIFICATES FROM OTHER PROVINCES OR COUNTRIES

All enquiries must be directed to the Registrar of the Department of Education, Parliament Buildings, Victoria. For an individual who has qualified for certification, there are opportunities to advance certification level through the undertaking of various university degree programmes by means of university summer session or full-time winter session studies. Admittance and placement in terms of university degree studies is determined by the university at which the individual registers, not by the Department of Education. Placement on a degree programme, therefore, is not made by the university on the basis of the certificate first issued by the Department of Education but on the amount of appropriate transfer credit. Advancement of certification thereafter is related to the obtaining of a given standing toward a specific degree at an approved institution.

## TEACHER QUALIFICATION SERVICE

The Teacher Qualification Service, sponsored jointly by the B.C. Teachers' Federation and the B.C. School Trustees' Association, provides an advisory service to teachers and school boards and evaluates teacher qualifications.

The Service acts only upon application and only after the individual has been granted a British Columbia teaching certificate (or has been assured of being granted such a certificate) by the Provincial Department of Education.

Qualifications are evaluated and categories assigned on the basis of complete years of professional preparation; partial years are not evaluated. At present the Teacher Qualification Service recognizes six categories, each corresponding to the number of years of training acceptable to the Teacher Qualification Service. One of the years must be a professional year.

Broadly speaking, the B.C. Teaching Licence qualifies for Teacher Qualification Service category 1 or 2, the Standard Certificate for category 3 or 4, and the Professional Certificate for category 4, 5 or 6. Teacher Qualification Service category 6 requires a minimum of six years of training and a Master's degree.

The Service at the present time deals primarily with teachers who are newly certified or who are new to a school district or who are up-grading their certificate. "Request for Evaluation" forms are available from the Teacher Qualification Service Office, #220 - 1070 West Broadway, Vancouver 9. Forms are also available at the Education Advising Centre, Room 250, MacLaurin Building, and the Registrar's Office, Building M.

## ADMISSION

### GENERAL REQUIREMENTS

Applicants for admission to the Faculty must meet the general requirements of the University outlined on pages 38 - 50. The University reserves the right, however, to refuse admission to this Faculty on the grounds of physical or health disabilities, or for other reasons, including unsatisfactory academic records.

Admission to the Faculty of Education may also be denied to those who are unable to demonstrate good use of English. Applicants whose native tongue is not English may be required to pass oral and written tests in English before being admitted.

For purposes of admission to the Faculty of Education, the following definitions for terms used in admission requirements will obtain:

- (a) "year" — a minimum of 15 units of work;
- (b) "overall" — all courses taken and completed including those of failed and supplemental status, but not including those from which a student withdrew officially.

Subject to the general regulations of the University governing admission with advanced standing and transfer credit, and to the decisions of the Faculty Committee on Admissions, applicants who hold a British Columbia teaching certificate and who have completed studies through another faculty or university, normal school or teachers' college, or British Columbia Grade 13, may receive credit for courses already completed provided the courses meet the requirements of their programme in Education. Normally, such students will be granted 15 units of transfer credit for the work of the professional year on a Bachelor of Education degree programme.

Students are advised that there may be priorities for enrolment in the professional years in the Faculty of Education. The priorities may involve the G.P.A. required for admission and the programme of studies which must be completed before embarking on the professional year. It may be that the year in which students may take their elementary professional work will be affected. Further information will be included in a supplement to this Calendar or may be obtained from the Education Advising Centre.

In the 1971-72 session, admission to the pre-professional year in the five-year elementary programme may require a minimum of 12 units of work and a G.P.A. of at least 2.00 (UVic) with satisfactory standing in the year (15 units) immediately prior to transfer into this Faculty, or overall G.P.A. of 2.00, and completion of school experience of at least 70 hours. Students wishing to transfer into Years Two, Three,

or Four of the secondary programme may be required to have a G.P.A. of 2.00 (UVic) with satisfactory standing in the year (15 units) prior to entering the Faculty, or an overall G.P.A. of 2.00.

**Minimum Requirements for Admission to Professional Years — 1970-71:**

**A. BACHELOR OF EDUCATION (FIVE-YEAR):**

**A1. ELEMENTARY CURRICULUM**

Credit in 24 units that must include: Education 297 (including 70 hours of school experience), Education 200, the core course in art or music or physical education, English 100, Geography 101 or History 102 or 101, a laboratory science, Mathematics 160 or other approved mathematics. A G.P.A. of 2.00 in the immediately preceding pre-professional year (15 units) or an overall G.P.A. of 2.00 is required.

**A2. SECONDARY CURRICULUM**

Completion of:

- (a) the candidate's two teaching areas with a G.P.A. of 3.00 in the senior courses of each;
- (b) the specified corequisites; and
- (c) the courses in Education required in the first four years of the programme.

**B. BACHELOR OF EDUCATION (ELEMENTARY) (FOUR-YEAR) — 1970-71 ONLY:**

Complete Year One of the programme with an overall G.P.A. of 2.00, and 70 hours of school experience.

**C. TRANSITIONAL (PROFESSIONAL YEAR) PROGRAMMES (ELEMENTARY) FOR UNDERGRADUATES:**

**C1. FIVE-YEAR BACHELOR OF EDUCATION (ELEMENTARY CURRICULUM)**

Credit in 24 units that must include the following:

English .....	6 units
Mathematics .....	3 units
Laboratory Science .....	3 units
Geography .....	3 units
History .....	3 units

A G.P.A. of 2.00 (UVic) in the immediately preceding year (15 units) or an overall G.P.A. of 2.00 is required. Beginning in 1971-72, admission requirements may include prior completion of 70 hours of school experience.

**C2. FOUR-YEAR BACHELOR OF EDUCATION (ELEMENTARY)**

A complete first year (15 units) in Arts or Science or equivalent including at least three units of credit in each of the following subjects:

- English
- A social science (preferably History or Geography)
- A laboratory science
- Mathematics

An overall G.P.A. of 2.00 (UVic) is required.

**D. DIPLOMA PROGRAMMES FOR GRADUATES:**

**D1. ELEMENTARY CURRICULUM**

A degree, acceptable to the Faculty as to content, with a G.P.A. of at least 3.00 (UVic) on the best 21 units of acceptable senior courses. Beginning in 1971-72 admission requirements may include prior completion of 70 hours of school experience. The following courses at lower and upper levels are recommended:

English .....	6 units
Mathematics .....	3 units
Fine Arts (Art, Music, Drama) or Physical Education .....	3 units
Laboratory Science .....	3 units
Geography .....	3 units
History .....	3 units
Courses applicable to not more than two elementary teaching areas (see pages 226 - 228) .....	12 units

## D2. SECONDARY CURRICULUM

- (a) A degree from a recognized university with the equivalent of at least nine units of work in the senior courses in each of two of the following subjects: art, biology or botany or zoology, chemistry, commerce, English, French, home economics, geography, German, history, Latin, mathematics, music, physical education, physics, Spanish, theatre; with a G.P.A. of 3.00 (UVic) in the senior courses that constitute each of the teaching subjects; or
- (b) A Master's or Honour's degree in one of the subjects listed in (a); or
- (c) A degree from a recognized university with the equivalent of at least fifteen units of work in senior courses in any one of the subjects listed in (a) with a G.P.A. of 3.00 (UVic) in these courses\*.

\*In 1971-72 and thereafter, an additional nine-unit sequence of junior and senior course work in a second teaching subject area may be required.

### ENGLISH REQUIREMENT

All students enrolling in the University in first year are required to write a qualifying examination in the use of English. Students who fail this examination are required to take English 110. Students who pass the qualifying examination are eligible to register in English 120 which is prerequisite to all other courses in English.

For further details in regard to English, please refer to the section of this Calendar pertaining to the Department of English.

### GENERAL INFORMATION

Students will not be allowed to register in or transfer into the Faculty of Education after the fifth day of instruction.

Students enrolling in the University for the first time should read the general regulations given on pages 34 to 49 of this Calendar. Note that a completed application form and official transcripts must be submitted to the Director of Admissions (see p. 37). In addition, if the applicant holds a British Columbia teaching certificate, and has had his professional training outside of the Province or attended a Normal School within the Province, he must request the Registrar of the Provincial Department of Education, Victoria, B.C. to send to the Director of Admissions a statement of "Transfer of Credit," indicating successful completion of teacher training.

Students who have been previously registered at the University and who wish to enter the Faculty of Education must apply to the Registrar (see p. 50).

*In all cases, when students are applying for first admission to the Faculty, they should state the particular programme desired and the teaching area(s) they wish to complete, and, in the case of elementary degrees, specify whether they wish a primary or an intermediate emphasis.*

Students who apply to take courses for credit towards a B.Ed. degree, and who have not taken relevant academic/professional courses during the previous ten years, must have their status evaluated by the Faculty Admissions Committee, and may be required to complete successfully up to 18 units of specified courses before they can proceed towards a B.Ed. degree. In special cases, where a student has obvious deficiencies in his professional background, even though he has taken a course or

courses during the previous ten years, the Faculty Admissions Committee may require him to bring his background up to date by completing a course or courses specified by the Committee before he is permitted to proceed towards a B.Ed. degree.

For information concerning fees and general expenses, see pages 59 to 63 of this Calendar. Students in Education who will be undertaking Education 197, 297, 797, 398, or 798 (Student Teaching) should allow an additional \$50 to \$100 for travel to schools. Where a post-session practicum is required, students are reminded that their year is not completed until the middle (or end) of May. Only those students resident in the Victoria area may normally expect to take their post-session practicum in School Districts 61, 62, or 63.

For information concerning financial assistance, see pages 309 to 354 of this Calendar.

#### ACADEMIC ADVICE

Students wishing advice about any of the courses or programmes offered in the Faculty of Education should consult the Advising Centre of the Faculty or write to that office for information; this office is located in Room 250, MacLaurin Building.

It is expected that each student within the Faculty of Education will make a commitment to a particular programme and two teaching areas (except on the four-year programme — one area only), either through seminar contact or direct negotiation with the Advising Centre. When the student has notified the Advising Centre of his choice of programme and teaching area(s), a formal Programme Outline will be drawn up and issued to him. Once this programme outline has been formalized, it is the student's responsibility to contact the Advising Centre for permission to make any adjustments or substitutions etc.

Advisors are available by appointment. It is important that interviews be scheduled in advance by phone or letter as there is no guarantee that casual "drop-ins" can be accommodated.

#### STANDING AND CREDIT

Students should refer to the general statements on pages 56 to 58 of this Calendar. To be eligible for the Bachelor of Education degree, the candidate must normally have earned:

- (a) a mark of at least D in each of the courses comprising the degree programme;
- (b) a G.P.A. of 3.00 on the teaching area(s) as specified for each programme.

A student who meets the minimum requirement for Pass standing in a given year but whose standing is nevertheless considered by the Faculty to be unsatisfactory, will be placed on probation for the following year. At the end of this year the probationary category may be removed or, if there has been insufficient improvement, the student will not be permitted to proceed to the next higher year. If a student fails to qualify for admission to the professional year (insufficient credit or G.P.A.) a year's extension may be granted to complete these requirements. This year shall be considered probationary. Failure to meet the stated requirements shall obviate entry into the professional year and normally require withdrawal from the Faculty.

Once a student is registered in the Faculty of Education, credit will not be given for work undertaken elsewhere unless prior written permission has been obtained from the Education Advising Centre.

#### SUMMER SESSIONS AND OTHER CREDITS

Credit for work taken at other universities, or by extension may be granted subject to the following special regulations:

1. The maximum credit for work taken by summer session in any one calendar year is six units.
2. Students who plan to undertake work at other universities are required to seek prior written approval from the Education Advising Centre if they wish such courses to be credited toward a degree at the University of Victoria.
3. Students in attendance at the University may not register for extramural or correspondence work to be taken concurrently.

## INDUSTRIAL EDUCATION

The Faculty of Education offers programmes in the teaching of Industrial Education leading to an undergraduate degree. This area of teaching is available in the Bachelor of Education (Secondary Curriculum) degree programme and includes preparation in both Industrial Education and a second secondary school teaching area. On completion of the degree the candidate may apply for the interim Professional Certificate.

Candidates will undertake at least a summer session or the first winter session at the University, spend twelve months at the British Columbia Vocational School in Burnaby, and then return to the University to complete the degree. Years Four and Five may be completed by summer and winter sessions.

Students planning to enter Industrial Education must be acceptable to the Division of Technical and Vocational Education, Department of Education. An interview with officials in the Department should be arranged by January 15 prior to undertaking course work at Burnaby.

All students accepted on this programme must be sure to have a formal Programme Outline drawn up by the Education Advising Centre prior to their registration in Year One. Further details are included on page 222.

## MUSIC EDUCATION

Students wishing to enter the Music Education teaching area, elementary or secondary programme, must first consult with the Music Education Section regarding admission. Any student presenting an A.R.C.T. or equivalent diploma will have his diploma evaluated by the Music Education Section. Up to six units of credit may be granted for this diploma at the discretion of the Music Education Section toward specific courses required on the teaching area.

Course requirements for the Music Education teaching areas are described on page 227 for the elementary programmes and on page 233 for the secondary programme. In addition, all students accepted in this area will be required to complete on of the following:

- (a) two years in a university performance group (Music 150, 151, 152, 153, 154, 155, Music Education 100);
- (b) one year in each of two university performance groups (as specified in (a) above); or
- (c) equivalent participation in an off-campus performance group(s) approved by the Music Education Section.

## PHYSICAL EDUCATION

Completion of a Physical Education teaching area requires attendance in at least three regular winter sessions, exclusive of the professional year.

Entry into the Physical Education teaching area is limited. Late applicants cannot be accepted. The following procedure must be closely followed by applicants:

1. *Medical*: All students planning on entering this teaching area must have a full medical examination within four months prior to registration. Even before completing their application for admission to the University, and in any case before July 1, students should write for medical cards; these must be fully completed, including the medical examiner's statement, and returned to the Health Services Office at the University by August 1. The line on the card headed "Faculty" should be clearly marked "P.E. Teaching Area."
2. *Transcripts*: In addition to submitting transcripts for admission to this Faculty as specified on pages 34 to 50, a student wishing to enter this teaching area must submit *by August 1* to the Physical Education Section a transcript of his previous year's work. If he is planning to enter the programme as a second year student, he should supply the Physical Education Section with transcripts for the previous two years. *Applicants should have a minimum average of C+ on the subjects taken in the last full year of work.*
3. *Physical Education Experience*: A student must, by August 1, submit to the Physical Education Section a letter describing his experience in physical education, athletics, and recreation activities in secondary school and in the community.

4. *Physical Proficiency and Teaching Attitude Tests:* All students planning to enter this teaching area must undergo a physical proficiency examination and write a teaching attitude test at 8:30 a.m. on Wednesday, September 2, in the University gymnasium.

Course requirements for the Physical Education teaching area are described on page 227 for the elementary programmes and on page 233 for the secondary programme. (Students entering third or fourth year in September 1970 will complete their work on the programme as described in the 1969-70 Calendar.)

Students who fail to qualify for admittance to this area on first application and who intend to re-apply in their second year are warned that Physical Education 149 is not acceptable for credit on a Physical Education teaching area. Any student who has elected to do Physical Education 149 and then is accepted into the Physical Education teaching area cannot count the credit for this course toward his degree.

Students are advised to include chemistry and biology in their secondary school programmes. Students who do not have at least Chemistry 11 and Biology 11 may be denied admission to the Physical Education teaching area.

Regulation uniforms, which may be obtained at the University bookstore, are required by all students specializing in physical education.

## A. THE BACHELOR OF EDUCATION DEGREE

### A1. ELEMENTARY CURRICULUM

This is the recommended programme for the preparation of elementary school teachers. Every candidate for this degree is required to complete at least 75½ units as outlined below which will include either two teaching areas or the Remedial Specialty for Elementary Schools. This programme extends over five regular sessions and the professional year must be taken as a "package." Under certain circumstances permission may be granted by the Education Advising Centre for students to take up to three additional units of education courses with the professional year, however students are cautioned that difficulties may arise in so doing due to the heavy load of the professional year and the fact that only professional year courses must be interrupted during practica. In programmes involving certain teaching areas Years Four and Five may readily be taken by summer sessions.

The degree requires successful completion of the following as a minimum:

Education, including student teaching .....	24½ units
Core courses .....	21 units
Teaching areas and electives, or the Remedial Specialty .....	30 units
Total .....	75½ units

(Refer to the outline on page 225.)

In order to complete the degree, the candidate is required to obtain a minimum G.P.A. of 3.00 in the 9-15 units of course work beyond the Core requirement contained in each teaching area or the 30 units of work of the Remedial Specialty. If the candidate selects as one of his teaching areas an academic subject area as prescribed by the Faculty of Arts and Science (General Programme), he must obtain a minimum G.P.A. of 3.00 in the nine units of senior courses comprising this academic teaching area.

Students following this programme will elect to follow either the Primary Option or the Intermediate Option; the course, Education 742, is quite distinct for each of these and in the other courses numbered in the 700's there is a difference in emphasis.

Students on an elementary programme may take courses specifically designated for secondary school teachers provided they secure special permission from the Education Advising Centre.

Students entering this programme with advanced standing from British Columbia Grade 13 or from another faculty or university will be required to make up any deficiency in the Education and Core courses listed for Years One and Two. In some instances, therefore, students may need work beyond the minimum degree requirement of 75½ units.

**Course Requirements:**

Education Courses		Core Courses		Teaching Areas	
Education 197	0	English 120, one of		Two teaching	
Education 297	0	200, 201, 203, 300	6	areas and	
Education 797	3	History 230 or 242	3	electives	30
Education 200	3	Geography 101	3	OR	
Education 305	3	Mathematics 160* or		Remedial Specialty	30
Education 340, or		other approved			
342 and 343	3	mathematics	3		
Education 420, 423,		Education 145 or a			
425, or 427	3	laboratory science	3-4		
Education 301	1½	Approved course(s)			
Education 401	1½	in art education,			
Curriculum and		music education,			
Instruction,		or physical			
700 series	6½	education	3		
	<hr/>		<hr/>		<hr/>
	24½		21-22		30

\*Mathematics 160 is not accepted for credit in the mathematics teaching area.

**Programme by Years:**

**Year One:**

Education 197 .....	0
English 120 .....	3
History 230 or 242 .....	3
Education 145 or a laboratory science .....	3-4
Approved three units from the following:	
Art Education 100;	
Music Education 106 and 1½ units from Music Education	
105, 107, 108;	
Physical Education 149, or 143 and 150 for students on a	
physical education teaching area .....	3
A course in a teaching area; or elective; or approved	
mathematics if required .....	3.....15-16

**Year Two: Pre-Professional Year**

Education 297 .....	0
Education 200 .....	3
English 200, 201, 203, or 300 .....	3
Geography 101 .....	3
Mathematics 160 or approved mathematics if the requirement	
has not been met .....	3
A course in a teaching area; or elective .....	3.....15

**Year Three: Professional Year**

Education 797 .....	3
Education 742 (Primary or Intermediate) .....	2
Education 744 .....	1½
*Education 745 .....	1
Education 746 .....	1
Education 305 .....	3
Education 301 .....	1½
Education 401 .....	1½
**Primary: Two of Education 701, 705 or 706	
or 707, 747 .....	2
**Intermediate: One of Education 701, 705 or 706	
or 707, 747 .....	1.....15½-16½

\*Primary students who have completed Education 245 will not take Education 745.

\*\*Students will not choose Education 701 if they have completed Art Education 100; nor Education 705 or 706 or 707 if they have completed three units of music education; nor Education 747 if they have completed courses in physical education.

**Year Three: Professional Year — Transitional Programme\***

Education 200 .....	3
Education 305 .....	3
Education 701 .....	1
Education 705 or 706 or 707 .....	1
Education 742 (Primary or Intermediate) .....	2
Education 744 .....	1½
Education 745 .....	1
Education 746 .....	1
Education 747 .....	1
Education 797 .....	3.....17½

\*See admission requirements page 220.

**Years Four and Five:**

Education 340 (Primary Option) or 342 and 343 (Intermediate Option) .....	3
Education 420, 423, 425, or 427 .....	3
Courses in teaching areas and electives; or Remedial Specialty .....	24.....30

**Teaching Areas (Elementary):**

The arrangement of courses in the following teaching areas is designed to meet the requirements of the five-year programme. Students in the four-year programme will have to defer certain courses shown in the pre-professional years until Year Three or Four.

**Art Education:**

Core: Art Education 100;

Pre-Professional Years: History in Art 100 or 120; Art Education 302 or other studio art elective in Fine Arts;

Post-Professional Years: Art Education 300, 301, 400.

**Creative Drama:**

Pre-professional Year: Theatre 181;

Post-professional Years: Six units from Theatre 382, 394, 481; three units from Education 300, 344, 495\*.

\* Education 495 may be taken only subsequent to nine units in Theatre.

NOTE: Students should seek guidance from the Theatre Division as to the arranging of this teaching area.

**Early Childhood Education:**

Post-Professional Years: Education 341 (or equivalent), 440, 441; three units from: Art Education 302, Education 407, 408, Music Education 108, Theatre 181.

**Language Arts:**

Post-Professional Years: Linguistics 390\*; one of the following options:

Primary Option: Education 341 or approved substitute, 342, 343, and three units from Education 344, 347, 348, 415, 442, Theatre 181, 382, Library Education 430, 431.

Intermediate Option\*\*: English 301, Education 347, 348, and three units from Education 344, 415, 442, Theatre 181, 382, Library Education 430, 431.

\*If an approved course in Linguistics has been taken in Year One or Two, the student may select three additional units from the listed optional courses.

\*\*Education 342 and 343 must be included in the core.

**Library Education:**

Post-Professional Years: One of the following options:

Primary Option: Education 341, 342, 343, Library Education 430, 431.

Intermediate Option\*: English 301, Library Education 430, 431, three units from: Education 415, 442, Theatre 181, 382.

\*Education 342 and 343 must be included in the core.

**Mathematics:**

The following courses are not acceptable for credit in the mathematics teaching area: Mathematics 012, 160, 180, 203, 360.

Core: Three units of approved mathematics.

Pre- and Post-Professional Years: Twelve additional units of approved mathematics courses. In planning a sequence of courses students must consider prerequisites. Mathematics 102, 151, 240, 343, 110, 210, 170, 171 is an appropriate sequence. Students with at least a B standing in Mathematics 12 might consider courses suggested for prospective secondary teachers (see page 232).

**Mathematics/Science:**

The following courses are not acceptable for credit in the mathematics/science teaching area: Mathematics 012, 160, 180, 203, 360.

Core: Three units of approved mathematics; a course in a laboratory science;

Pre-Professional Years: Three units of approved mathematics; a second course in a laboratory science;

Post-Professional Years: Nine additional units in mathematics or science.

NOTE: The science courses in the above teaching area must be selected to meet the following requirements:

1. At least three units from Education 145, Physics, Chemistry (4 units);
2. At least three units from Biology, Bacteriology, Botany, Zoology;
3. At least three additional units chosen from: Biology, Bacteriology, Botany, Zoology, Physics, Chemistry, Astronomy, Geology, Geography 203 or 302, Education 345, Physical Education 241.

Further science electives will be chosen from those listed in 3 above. Students on the four-year Bachelor of Education (Elementary) degree programme will substitute a senior elective for Education 345 in Year Four.

**Music Education:**

Core: Music Education 106 and one of Music Education 105, 107, 108;

Pre-Professional Years :Music 100, 110; performance groups as described on page 223;

Post-Professional Years: Music 356 or 360; Music Education 305; three units chosen from Music 115, 140 or courses selected in consultation with the Music Education Section.

**Physical Education:**

Core: Physical Education 143 and 150 (in lieu of 149);

Corequisite: Biology 150 or Education 145;

Pre-Professional Years: Physical Education 100, 142, 241;

Post-Professional Years: Physical Education 340, 341, 342, 344, 440\*, 441, 443, 444\*\*. The following additional courses may be taken as electives: Physical Education 343, 442, 445.

\*Physical Education 440 is required in the five-year programme only.

\*\*Education 301 is prerequisite to Physical Education 444.

NOTE: Please refer to the notes on page 223 regarding physical education.

**Science:**

Core and Pre-Professional Years: Two laboratory science courses, one taken from each of the following areas:

1. Education 145, Physics, Chemistry\*.
2. Biology, Bacteriology, Botany, Zoology.

Post-Professional Years:

1. One of Astronomy 120 or 200, Geology 200, Geography 203 (or alternative approved by the Science Education Section);
2. Three units of electives chosen from any area above or Education 345, Geography 302, or Physical Education 241 (Education 145 may not be chosen as an elective);

### 3. Education 445.

\*Chemistry 121 must accompany Chemistry 124; Chemistry 111 must accompany Chemistry 120.

NOTE: Students in the four-year Bachelor of Education (Elementary) programme will substitute an elective for Education 345 in Year Four.

#### Social Studies:

Post-Professional Years: Anthropology 339 (unless Anthropology 100 completed) or other approved Anthropology; Education 346; two senior courses in history or two senior courses in geography.

#### Special Classes:

Post-Professional Years: Education 407; 415; 416 or 442; one of: 402, 408, 409A, 409B, 409C\*, or 409D; any other two of the courses listed.

\*In addition, Education 496 is recommended for students specializing in the teaching of the mentally retarded.

#### Academic Subject Areas:

With the prior approval of the Education Advising Centre, students may select as one teaching area a General Programme in one subject area as prescribed by the Faculty of Arts and Science.

#### Remedial Specialty for Elementary Schools:

Corequisite: Biology 150;

Pre-Professional Year: Sociology 100; a 3-unit course in psychology selected in consultation with the Faculty of Education and the Department of Psychology;

Post-Professional Years: Sociology 301; six units of psychology selected in consultation with the Faculty of Education and the Department of Psychology; Education 402, 403, 407, 408, 413 or 409C, 414 or 442, 415, 416 or 442, 417.

NOTE: Admission to the Remedial Specialty requires the approval of the Education Advising Centre. Students must take Education 200 in Year One.

## A2. SECONDARY CURRICULUM

This programme is designed for the preparation of secondary school teachers. It consists of a minimum of 75 units and requires specialization in two subject areas normally taught in the secondary schools of B.C. In each of these, including pre-requisite courses, students must complete no fewer than 15 units and not more than 24 units. For graduation, a G.P.A. of 3.00 must be attained in the senior courses of each subject area. The calculation of a teaching area G.P.A. on the secondary programme shall be based on all senior courses of the teaching area. When less than nine units of senior courses are taken the minimum basis for the calculation shall be nine units and shall include one or more of the immediately preceding junior level courses from the same teaching area.

The programme ordinarily requires attendance at five winter sessions; during each of the five years a seminar and professional experience or student teaching will be required. The professional year is taken as a "package" in Year Five. Students are cautioned against taking courses in addition to those specified for this year; approval of the Education Advising Centre is required before any such courses may be taken.

Students in the secondary programme may take courses specifically designated for elementary school teachers provided they secure special permission from the Education Advising Centre.

#### Course Requirements:

Education, including student teaching .....	21 units
Academic courses, chosen from two teaching areas (including prerequisites and corequisites) .....	45 units
Electives .....	9 units
Total .....	<hr/> 75 units

**Programme by Years:**

**Year One:**

Education 198 .....	0
English 120 .....	3
Teaching areas .....	6
Corequisites and/or electives .....	6.....15

**Year Two:**

Education 298 .....	0
Teaching areas .....	9
Corequisites and/or electives .....	6.....15

**Year Three:**

Education 398 .....	0
*Education 300, 360, 403, 430, 431, or other approved education elective .....	1½
Education 303 .....	1½
Teaching areas and/or senior electives .....	12.....15

\*All students in physical education should consult the Education Advising Centre before registering in Year Three regarding a required prerequisite which may have to be taken in this year.

**Year Four:**

Education 498 .....	0
Education 406 .....	3
Teaching areas and/or senior electives .....	12.....15

**Year Five: Professional Year 1970-71 Only**

Education 798 .....	3
One of Education 750 to 770 (first teaching area) .....	1½
One of Education 750 to 770 (second teaching area) .....	1½
Education 401 .....	1½
Education 430 .....	1½
Education 420, 423, 425, or 427 .....	3
Approved Education elective* .....	3.....15

\*All students are asked to seek guidance from the Education Advising Centre. Those planning to proceed to a Master's degree in Education are asked to seek further guidance from the Graduate Advisor of the Faculty of Education.

**Year Five: Professional Year 1971-72 Only**

Education 798 .....	3
One of Education 750 to 770 (first teaching area) .....	1½
One of Education 750 to 770 (second teaching area) .....	1½
Education 401 .....	1½
Education 430 or approved elective* .....	1½
Education 420, 423, 425, or 427 .....	3
Approved Education elective** .....	3.....15

\*Students may substitute an approved elective in place of Education 430 provided they have completed units on school law and organization in Education 498.

\*\*All students are asked to seek guidance from the Education Advising Centre. Those planning to proceed to a Master's degree in Education are asked to seek further guidance from the Graduate Advisor of the Faculty of Education.

**Year Five: Professional Year Commencing 1972-73**

Education 798 .....	3	
One of Education 750 to 770 (first teaching area) .....	1½	
One of Education 750 to 770 (second teaching area) .....	1½	
Education 301 .....	1½	
Education 401 .....	1½	
Education 430 or approved elective* .....	1½	
Education 420, 423, 425, or 427 .....	3	
Approved Education elective** .....	1½	.....15

\*Students may substitute an approved elective in place of Education 430 provided they have completed units on school law and organization in Education 498.

\*\*All students are asked to seek guidance from the Education Advising Centre. Those planning to proceed to a Master's degree in Education are asked to seek further guidance from the Graduate Advisor of the Faculty of Education.

**Programme for Those Who Have Completed Professional Training:**

Students who have completed two or three years of university work including a professional year at this university or who hold a teaching certificate issued by the Department of Education may transfer to the Bachelor of Education (Secondary Curriculum) programme and complete the degree and requirements for teaching in the secondary schools. The following specific conditions will apply:

- (1) As a minimum the student must meet the unit requirements, teaching area requirements, and G.P.A. requirements as stated in section A2, page 220.
- (2) Only the following education courses\* of the secondary programme must be completed: Education 301; 401; 406; one of 420, 423, 425, 427; two of 750-770 (in the two teaching areas); 430 or 498 or teaching experience in B.C. public schools.

\*Courses taken prior to enrolment on this programme may be substituted for the above if approved by the Education Advising Centre.

- (3) A student will be considered to have met the minimum requirements for Year Four only when 15 units or less are required to complete the degree and for Year Three only when 33 units or less are required to complete the degree (and provided 30 units has been completed in addition to a professional year).

**Teaching Areas (Secondary):**

The minimum required in each of the two teaching areas is 15 units. In addition to these 30 units a total of 15 units is required made up of corequisites and additional area courses. Normal patterns of the division may be:

	<i>Units</i>	<i>Units</i>
First teaching area .....	24	21
Second teaching area .....	15	18
Corequisites .....	6	6
	<hr/>	<hr/>
Total units .....	45	45

Only with prior permission of the Education Advising Centre may exceptions be permitted to any of the following subject and course requirements. Courses numbered in the 100's and 200's are normally taken in Years One and Two, and except where the teaching area requires it, courses numbered below 300 may not be taken in Years Three and Four.

**Art:**

Years One and Two: History in Art 100 or 120; Art 105 (6 units);

Corequisites: English 120, 200 or 201;

Senior Years: Art 109; Art Education 300; up to nine additional units of Fine Arts may be selected from courses approved by the Education Advising Centre.

**Biological Sciences:**

Years One and Two: Biology 150;

Corequisites: Chemistry 121 and 124, or 111 and 120; Chemistry 230 and 231; English 110 or 120; Mathematics 130 (required only if Physics 101 or 121 selected); Physics 101 or 103 or 121 (not required if Physics 12 completed);

Senior Years: Biology 300, 306; Botany 331 or Zoology 305; two of: Zoology 202, 301, Botany 205; up to six additional units may be taken from the biological science courses listed above or from senior courses for which prerequisites are held.

NOTE: Students who have fulfilled the Biology 150 requirement by completing Biology 12 prior to entry to the University must complete all three of Zoology 202, Zoology 301, and Botany 205.

**Chemistry:**

Years One and Two: Chemistry 121 and 124, 224, 231 and 233;

Corequisites: English 110 or 120; Mathematics 130, 230; Physics 101 or 121, 212;

Senior Years: Chemistry 344, 326 (or 331 and 334).

NOTE: If 18 units of chemistry are selected, six units from the following will be taken in addition to Chemistry 344 in the senior years: Chemistry 300; Chemistry 326; Chemistry 331 and 344.

**English:**

Years One and Two: English 120, 200;

Corequisites: Linguistics 100, 390;

Senior Years: English 400, 434 or 435, 437; up to nine additional units may be selected from English 413, 423 or 424, 433, 430 or 431, 429 or 438.

NOTE: English 413 is recommended in a sequence of 18 units or more. In a 21- or 24-unit sequence English 203 may be included in Year Two and no other courses in American literature may then be taken.

**French:**

Years One and Two: French 180, 285, 290;

Corequisites: English 120, 200;

Senior Years: French 302, 350\*; up to nine units numbered 400 or higher.

\*Where a student can demonstrate competence in oral French satisfactory to the instructor in Education 754, three units of courses numbered 400 or higher may be substituted for French 350.

**General Science:**

Years One and Two: Biology 150; Chemistry 111 and 120, or 121 and 124; Physics 101 or 121;

Corequisites: English 110 or 120; Mathematics 130;

Senior Years: Biology 300 and 306; Chemistry 224, or 230 and 231, or 233 and 231; Physics 212\* or 213\* or Astronomy 120 or 200; Geology 200.

\*Requires additional corequisite, Mathematics 231 (or 230 and 232).

**Geography:**

Years One and Two: Geography 101, 204, and one of 201 or 203 or 205;

Corequisites: English 120, one of 200, 201, 203;

Senior Years: Geography 305 or 350 plus one senior course is the minimum requirement for a 15-unit programme. Students taking 21 or 24 units of geography are advised to take both Geography 305 and 350. One senior course in regional geography is strongly recommended.

**German:**

Years One and Two: German 100 or 140, 260, 290;

Corequisites: English 120, 200;

Senior Years: German 302; three to twelve units from courses numbered 400 or higher.

**Guidance:**

Social science courses are to be chosen in consultation with a Faculty advisor.

Years One and Two: Six units selected from lower-division courses in two areas of the social sciences—Anthropology, Economics, Political Science, Psychology, Sociology—of which only three units may be chosen at the 100 level;

Corequisite: English 110 or 120;

Senior Years: Education 300, 302, 417, 418, 419, and six units of senior social science courses following the pattern set in Years One and Two.

**History:**

Fifteen to twenty-four units of history are required (including at least six units of courses at the first and second year level and at least nine units of upper year courses).

At least three units (at any level) in Canadian history and three units in modern European or contemporary world history must be taken.

Corequisites: English 120, 200 or 201;

NOTES: 1. Political Science 318 may be elected in place of one senior history course.

2. Students taking this teaching area may not elect History/History in Art as their second teaching area.

**History/History in Art:**

A 24-unit teaching area for students wishing to take history and history in art as one teaching area.

Twelve units of history are required (including at least three units in Canadian history and three units in modern European or contemporary world history). At least six of the twelve units must be senior courses.

Twelve units of history in art are required (including History in Art 120 and nine units chosen from History in Art 320, 340, 360, 380, 441, 481).

Corequisites: English 120, 200 or 201;

NOTES: 1. In the professional year, Education 758 will be taken.

2. Students taking this teaching area may not elect History as their second teaching area.

**Industrial Education:**

Corequisites: Chemistry 121 and 124, or 111 and 120; English 110 or 120; Mathematics 100 and 101, or 130 or ~~140 or 150~~<sup>180</sup>; Physics 101 (Mathematics 130 required) or 103;

Years Two and Three: Thirty-three units of Industrial Education in consultation with the Director of Industrial Education, British Columbia Vocational School, Burnaby (these courses are offered at this school).

NOTE: Students on the regular programme will take all corequisites in Year One; as the fifth subject they should take either a prerequisite course in their second teaching area or Education 200. All students should seek advice from the Education Advising Centre regarding course selection.

**Latin:**

Years One and Two: Six units of junior Latin courses in sequence including Latin 240;

Corequisites: English 120, 200; Classical Studies 100 or Greek 100;

Senior Years: Nine to twelve units of senior Latin courses; an additional three to six units of Classical Studies may be taken.

**Mathematics:**

Years One and Two: Mathematics 100 and 101, or 130; 110 and 210, or 232; 200 and 201, or 230, or 231;

Corequisite: English 110 or 120;

Senior Years: Mathematics 337; 332 or 333; up to nine additional units of senior courses may be taken. Students are also permitted to select from Mathematics 170, 171, 270, 271.

**Music:**

Years One and Two: Music 100, 110, 115, 140 or 240 (preferably piano for the student electing the choral option); performance groups as described in page 224;

Corequisites: English 120, 200 or 201;

Senior Years: One of the following options:

*Choral Option:* Music Education 305; Music 356, 360. Up to six additional units may be chosen from senior music history electives and Music 200, 205, 240, 300, 340, 365, 400, 440.

*Instrumental Option:* Music Education 305; Music 330, 331, 332, 356. Three additional units may be chosen from senior music history electives and Music 200, 205, 240, 300, 335, 365, 400, 440.

**Physical Education:**

Years One and Two: Physical Education 100, 142, 143, 150, 241;

Corequisites: English 110 or 120; Biology 150 (unless Biology 12 completed);

Senior Years: Physical Education 340, 341, 342, 344, 440, 441, 443, 444\*. The following additional courses may be taken:

Physical Education 343, 442, 445.

\*Education 301 is prerequisite to Physical Education 444.

NOTE: Please refer to the notes on page 223 regarding physical education.

**Physics:**

Years One and Two: Either: Physics 101, 211, and 212; or Physics 121, 212, and 213;

Corequisites: English 110 or 120; Mathematics 130, 231 (or 230 and 232), 303 or 330 or 331, 323 or 345;

Senior Years: Physics 313\*, 322, 413; up to nine additional units of Physics may be taken. (Students are urged to seek advice regarding any of these courses.)

\*Physics 313 must be taken by students who have not taken 213 in Year Two.

**Social Studies:**

A 24-unit teaching area for students wishing to take geography and history as one teaching area. Nine to fifteen units of geography and fifteen to nine units of history must be taken.

Geography courses must include Geography 101, 204, and one of 201 or 203 or 205. If more than nine units are selected in geography, Geography 305 or 350 must be taken.

History courses must include at least three units in Canadian history and three units in modern European or contemporary world history.

Corequisites: English 120, 200 or 201;

NOTE: 1. In the professional year, students will elect either Education 755 or 758.

2. Students taking this teaching area may not elect Geography or History as a second teaching area.

**Theatre:**

Years One and Two: Theatre 100, 105, 120, 181;

Corequisites: English 120, 200 or 201;

Senior Years: Theatre 312, 330, 382. A further three units of senior Theatre courses may be selected.

**B. THE BACHELOR OF EDUCATION (ELEMENTARY) DEGREE**

This is an alternative programme designed for the preparation of elementary school teachers and is being phased out (by Senate approval in 1968). In order to be admissible in 1970-71, a candidate must have completed the requirements for admission to Year Two, the Professional Year. The degree programme must be completed by the summer of 1977; otherwise the candidate will be required to transfer to the five-year Bachelor of Education (Elementary Curriculum) degree programme. In so doing, credit for all courses previously completed cannot be assured.

Beginning in 1971-72, students who have completed professional training and fifteen units of acceptable first year work may be accepted on the four-year programme but will be required to complete the degree by 1977.

The degree and the teaching certificate require successful completion of the following as a minimum.

Education, including student teaching .....	24 units
Core courses .....	21 units
Teaching Area and electives .....	21 units
<b>TOTAL .....</b>	<b>66 units</b>

In this programme students are required to complete only one of the teaching areas listed on pages 226 to 228. In meeting requirements for the degree, some students may be able to complete a second area. For graduation the candidate is required to obtain a minimum G.P.A. of 3.00 in the 9-15 units of course work beyond the Core requirement contained in the teaching area of his choice. If the candidate selects as his teaching area an academic subject area as prescribed by the Faculty of Arts and Science (General Programme), he must obtain a minimum G.P.A. of 3.00 in the nine units of senior courses comprising this academic teaching area.

Students following this programme will elect to follow either the Primary Option or the Intermediate Option; the course, Education 742, is quite distinct for each of these and in the other courses numbered in the 700's there is a difference in emphasis. All students electing the Primary Option must take Education 340 as a Core requirement.

**Course Requirements:**

Education Courses:	Core Courses	Teaching Area
Education 297	0	Teaching Area
Education 797	3	Electives
Education 200	3	9-15
Education 305	3	12- 6
Education 345	3	
Education 360	1½	
Education 420, 423, 425, or 427	3	
Curriculum and Instruction, 700 series	7½	
	24	
	English 120, one of 200, 201, 203, 300	
	History 230 or 242	6
	Geography 101	3
	Approved courses in art education, music education, or physical education	3
	Education 145 or a laboratory science	3-4
	Mathematics 160* or other approved mathematics	3
	21-22	21

\*Mathematics 160 is not accepted for credit in the mathematics teaching area.

**Programme by Years:**

<b>Year Two: Professional Year (1970-71 Only)</b>	
Education 797 .....	3
Education 200 .....	3
Education 360 .....	1½
*Two of Education 701, 705 or 706 or 707, 747 .....	2
Education 742 (Primary or Intermediate) .....	2
Education 744 .....	1½
Education 745 .....	1
Education 746 .....	1.....15

\*Students must not select Education 701 if they have credit in Art Education 100; nor Education 705 (or 706 or 707) if they have credit in music education; nor Education 747 if they have credit in physical education.

**Year Two: Professional Year — Transitional Programme\* (1970-71 Only)**

Education 797 .....	3	
Education 200 .....	3	
Education 360 .....	1½	
Education 742 (Primary or Intermediate) .....	2	
Education 744 .....	1½	
Education 745 .....	1	
Education 746 .....	1	
Approved course(s) in art education, music education, or physical education .....	3	
**Two of Education 701, 705 or 706 or 707, 747 .....	2	18

\*For admission requirements, see page 220.

\*\*Students will not take Education 701 if they elect Art Education 100; nor Education 705 (or 706 or 707) if they take music education; nor Education 747 if they take physical education.

**Year Three:**

Education 305 .....	3	
English 200, 201, 203, or 300 .....	3	
Geography 101 .....	3	
Teaching area and/or electives .....	9	18

**Year Four:**

Education 345 .....	3	
Education 420, 423, 425, or 427 .....	3	
Teaching area and/or electives .....	12	18

**D. DIPLOMA PROGRAMMES FOR GRADUATES**

**D1. Elementary Curriculum**

Education 797 .....	3	
*Education 200 .....	3	
Education 301 .....	1½	
Education 360 .....	1½	
Education 401 .....	1½	
Two of Education 701, 705 or 706 or 707, 747 .....	2	
Education 742 (Primary or Intermediate) .....	2	
Education 744 .....	1½	
Education 745 .....	1	
Education 746 .....	1	

\*Students with acceptable background in psychology may be permitted to register in a special section of Education 200. All such students will register for the regular Education 200 and change sections during the first week of lectures if permission is granted by their Education 200 instructor.

**D2. Secondary Curriculum**

Education 798 .....	3	
Education 301 .....	1½	
Education 303 .....	1½	
Education 401 .....	1½	
Education 406 .....	3	
Education 420, 423, 425, or 427 .....	3	
Education 430 .....	1½	
One of Education 750 to 770 (first teaching area) .....	1½	
*One of Education 750 to 770 (second teaching area) .....	1½	18

\*Students presenting only one teaching area will be required to complete Education 495 or another approved education elective in place of this requirement. Arrangements should be made through the Education Advising Centre.

# COURSES IN THE FACULTY OF EDUCATION

## UNDERGRADUATE COURSES

### EDUCATION

Courses numbered 301 to 497 (inclusive) are open to students who have completed a professional year or whose programmes specify one of these.

**EDUC 145. (3) General Science**

Topics from astronomy, biology, chemistry, geology and physics selected to provide a broad background for the teaching of elementary school sciences. Laboratory exercises will emphasize the process of scientific inquiry.

Dr. Walker, Mr. Williams. (3-2; 3-2)

**EDUC 197. (0) First-Year Elementary Seminar and School Experience**

Members of the Faculty. (1-0; 1-0)

**EDUC 198. (0) First-Year Secondary Seminar**

Members of the Faculty. (1-0; 1-0)

**EDUC 200. (3) Introduction to Educational Psychology**

The application of psychological principles to elementary classroom practice.

Miss Timmons, Mr. Viesti, Dr. Galloway. (3-0; 3-0)

**EDUC 201. (1 ½) Educational Psychology**

The application of psychological principles to elementary classroom practice.

Prerequisite: Senior psychology courses acceptable to instructor.

(Not offered 1970-71).

**EDUC 297. (0) Pre-Professional Year Elementary Seminar and School Experience**

Lectures and seminar discussions relating to such topics as classroom management procedures, lesson planning, changing role from student to teacher, duties and responsibilities of school personnel, ethics, pupil-teacher relationships, etc.

A post-session practicum may be required at the end of the 1970-71 session.

Prerequisite: 15 hours approved school experience.

Members of the Faculty. (2-0; 2-0)

**EDUC 298. (0) Second-Year Secondary Seminar**

Members of the Faculty. (1-0; 1-0)

**EDUC 300. (1 ½) Seminar in Human Communication and Interaction**

A study of effective human communication including verbal and non-verbal factors, group variables affecting communication, individual and group change. Students will conduct independent projects of their own choice and will, through seminar, directly experience individual and group influences on interpersonal communication.

Prerequisite: Consent of instructor.

First or Second term.

Dr. Peavy. (3-0)

**EDUC 301. (1 ½) Introduction to Measurement in Education**

Elementary statistics, test validity and reliability, marking and grading.

Dr. Ayers, Dr. Mason, Dr. Taylor. (1½-0; 1½-0)

**EDUC 302. (1 ½) Use of Group Tests**

Study of the purposes, uses, administration, scoring, and interpretation, of group tests commonly used in counselling. Includes tests of aptitudes, achievement, interests, and personality.

Prerequisite: Education 301 or consent of instructor.

First term only.

Dr. Taylor. (3-0; 0-0)

- EDUC 303. (1 ½) **Introduction to Psychology of Classroom Learning**  
 An introduction to the psychology of learning in the secondary school.  
 First or Second term.  
 Dr. Downing, Dr. Thomson, Dr. Timko. (3-0)
- EDUC 305. (3) **Psychology of Childhood**  
 Mental, social, emotional and physical characteristics of pre-school and elementary school pupils, their interests and problems; emphasis upon classroom implications.  
 Credit cannot be granted for both Education 305 and Education 406.  
 Dr. Downing, Dr. Knowles. (3-0; 3-0)
- EDUC 340. (3) **Curriculum and Instruction in the Kindergarten and Primary Grades**  
 Trends, issues and research in kindergarten and primary education as the basis for curriculum development, organization, and instruction.  
 Dr. Dey, Mrs. Mickelson. (3-0; 3-0)
- EDUC 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 programme in the primary grades. (3-0; 3-0)
- EDUC 342. (1 ½) **Foundations of Reading**  
 Consideration of the processes and psychology of reading. Developmental scope and sequence.  
 First term only. (3-0; 0-0)
- EDUC 343. (1 ½) **Reading in the Elementary School**  
 Components of a total reading programme: examination, evaluation, and construction of instructional materials; curricular organization.  
 Prerequisite: Education 342.  
 Second term only. (0-0; 3-0)
- EDUC 344. (1 ½) **Speech Development in the Elementary School**  
 Factors influencing the development of children's speech, analysis of children's speech (diction, voice production, tone control); common speech patterns of children; classroom activities for speech development.  
 Second term only. (0-0; 3-0)
- EDUC 345. (3) **Selected Topics in General Science**  
 In depth studies of scientific concepts basic to the new elementary school science curricula.  
 Mr. Hall. (2-2; 2-2)
- EDUC 346. (3) **Social Studies in the Elementary School**  
 The structural character and implication for teaching of the social studies discipline; principles and practices of direct and indirect teaching; sample and patch studies as advanced organizers of resource materials; unit planning and preparation and the evaluation of procedures.  
 Enrolment in this course is limited.  
 Prerequisite: Consent of the instructor.  
 Mr. Owen. (3-0; 3-0)
- EDUC 347. (1 ½) **Foundations of Elementary School Language**  
 A study of the language of elementary school children and of the nature of the listening, speaking and writing processes.  
 First term only. (3-0; 0-0)
- EDUC 348. (1 ½) **Language in the Elementary School**  
 The development of curriculum in the elementary school language programme: a study of methods and materials.  
 Second term only. (0-0; 3-0)

**EDUC 360. (1 ½) Introduction to Educational Media**

Analysis of the theory, practice, and values of teaching with audio-visual media. Demonstrations and laboratory experiences in the utilization of filmstrips, slides, audio tapes, overhead transparencies, motion pictures, opaque visuals, graphics, models, and displays.

First or Second term.

(3-0)

**EDUC 361. (1 ½) Advanced Educational Media**

Comprehensive synthesis of audio-visual media, educational television, programmed instruction, and multimedia systems for all levels of education. Laboratory experiences in the operation of complex equipment and the preparation of video tapes, sound slides, learning programmes, and single concept films.

Prerequisite: Education 360 or consent of instructor.

(Not offered 1970-71.)

**EDUC 398. (0) Third-Year Secondary Seminar and School Experience**

Members of the Faculty.

(1-0; 1-0)

**EDUC 401. (1 ½) Evaluation of Learning**

The measurement of educational objectives, test item construction and improvement, reporting pupil progress.

Co- or Prerequisite: Education 301.

Dr. Ayers, Dr. Mason, Dr. Taylor.

(1½-0; 1½-0)

**EDUC 402. (1 ½) Individual Testing**

Theory and practice in the use of individual tests in education.

Prerequisite: Education 301.

Second term only.

Dr. Tinney.

(0-0; 3-0)

**EDUC 403. (1 ½) Social Psychology of School and Classroom**

The application of social learning theory to school and classroom management.

Prerequisite: Education 200 or 303.

First or Second term.

Dr. Galloway.

(3-0)

**EDUC 406. (3) Psychology of Adolescence**

The physiological, psychological, social, and educational aspects of adolescence.

Credit cannot be granted for both Education 406 and Education 305.

Dr. Chabassol, Mr. Viesti.

(3-0; 3-0)

**EDUC 407. (1 ½) The Exceptional Child — Cognitive and Affective Functions**

A consideration of children for whom the intellectual demands of the regular classroom are inappropriate — the gifted, the mentally retarded, the culturally disadvantaged, and the emotionally disturbed. Characteristics and programme modifications. This course is prerequisite to Education 409A, 409B, 409C, 409D.

First term only.

Mr. Ruth.

(3-0; 0-0)

**EDUC 408. (1 ½) The Exceptional Child — Sensory and Motor Functions**

A consideration of children whose sensory or motor defects or chronic illnesses render the regular school programme inappropriate — the visually or auditorially handicapped, children with orthopedic defects or chronic illnesses limiting activity, cerebral palsy and other neurological deficits. Characteristics and programme modifications. This course is prerequisite to Education 414.

Second term only.

Mr. Ruth.

(0-0; 3-0)

**EDUC 409A. (1 ½) Education of the Exceptional Child — the Gifted**

Identification procedures; early school admission and acceleration; setting goals for instruction; effective teaching methods; currently operating programmes.

Second term only.

Prerequisite: Education 407.

Dr. Myers.

(0-0; 3-0)

**EDUC 409B. (1 ½) Education of the Exceptional Child — the Slow Learner**

Developing a philosophy for educating the slow learner; an examination of the current research; interpretation, diagnosis and remediation techniques; evaluating programme effectiveness.

Second term only.

Prerequisite: Education 407.

(Offered in 1970-71 and alternate years.)

Miss Timmons.

(0-0; 3-0)

**EDUC 409C. (1 ½) Education of the Exceptional Child — the Mentally Retarded**

Selection procedures; curriculum modifications; effective teaching methods; currently operating programmes; evaluating programme effectiveness.

Prerequisite: Education 407.

(Offered 1971-72 and alternate years.)

**EDUC 409D. (1 ½) Education of the Exceptional Child — the Disadvantaged**

The effect of cultural disadvantages on school performance; special curricula for the disadvantaged; evaluating the effectiveness of the programme.

Second term only.

Prerequisite: Education 407.

(Offered in 1970-71 and alternate years).

Dr. Thomson. <sup>1971/72</sup>

(0-0; 3-0)

**EDUC 413. (1 ½) Mental Health**

An examination of the principles of mental health and their application to the classroom.

(Not offered 1970-71.)

**EDUC 414. (1 ½) Problems of Speech and Hearing**

An introduction to the problems of educating children with speech or hearing difficulties.

Prerequisite: Education 408.

(Not offered 1970-71.)

**EDUC 415. (1 ½) Diagnosis of Learning Difficulties**

A consideration of theories relevant to the causes and correction of learning difficulties; common tests used in a diagnostic battery, and the interpretation and educational implications of test results.

First term only.

Dr. Tinney.

(3-0; 0-0)

**EDUC 416. (1 ½) Remedial Instruction**

A consideration of the general principles of remedial instruction, remedial programmes in present use, and the development of specific remedial programmes for selected cases.

Prerequisite: Education 415.

Second term only.

Dr. Tinney.

(0-0; 3-0)

**EDUC 417. (3) Introduction to Counselling**

An introduction to the principles and practices of counselling.

Enrolment in this course is limited.

Prerequisite: Consent of the instructor.

Dr. Peavy.

(3-0; 3-0)

**EDUC 418. (1 1/2) Vocational Development and Occupational Choice**

Theories of career choice. Research from the area of psychology and sociology of careers. Survey of relevant appraisal techniques. Sources and interpretation of educational and occupational data.

Enrolment in this course is limited.

Prerequisite: Education 417 (may be taken concurrently), and consent of the instructor.

First term only.

Dr. Hawkes.

(3-0; 0-0)

**EDUC 419. (1 1/2) Individual and Group Counselling**

Basic counselling orientations; essentials of interviewing; group process analysis; advantages and limitations of group counselling.

Enrolment in this course is limited.

Prerequisite: Education 417 and 418 (may be taken concurrently), and consent of the instructor.

Second term only.

Dr. Hawkes.

(0-0; 2-2)

**EDUC 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.

Dr. Monk.

(3-0; 3-0)

**EDUC 423. (3) History of Education**

Development of educational theory and practice from the time of ancient Greece to the present.

Dr. Goulson.

(3-0; 3-0)

**EDUC 425. (3) Anthropology and Education**

Theory and perspectives from cultural anthropology relevant to the processes of education and operations of schools.

Dr. King.

(3-0; 3-0)

**EDUC 427. (3) Sociology of Education**

The social structure of western civilization and its significance for education.

(Not offered 1970-71.)

**EDUC 430. (1 1/2) The Organization and Administration of the B.C. School System**

Functions and duties of educational personnel as based on the B.C. Public Schools Act. Administration and organization of the individual school and classroom. Professional and community relationships.

First or Second term.

Dr. Hodgkinson.

(3-0)

**EDUC 431. (1 1/2) An 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.

(Not offered 1970-71.)

**EDUC 440. (3) Early Childhood Education**

Selection of curriculum content, experiences, and materials based on analysis of the developmental needs and behaviour of young children.

Prerequisite: Education 305 or 340 or consent of instructor.

(Offered 1971-72 and alternate years.)

**EDUC 441. (3) Curriculum Subject Areas In Pre-School Education**

Prerequisite: Education 440 or consent of instructor.

(Offered 1970-71 and alternate years.)

Dr. Dey.

(3-0; 3-0)

**EDUC 442. (1 ½) Corrective Reading Instruction**

Classroom diagnosis and treatment of reading difficulties; prevention of reading disabilities; corrective classroom procedures.

Prerequisite: Education 342 and 343 and 415.

Second term only.

(0-0; 3-0)

**EDUC 444. (1 ½) Mathematics Education in the Elementary School**

Current trends and curricular developments in elementary mathematics. Students will have the opportunity of making a special study at either the primary or intermediate level.

Prerequisite: Education 744 or Mathematics 203.

(Not offered 1970-71.)

**EDUC 445. (3) Science Education**

The nature of scientific inquiry, studies of the research in science teaching, comparative curricula, and contemporary thinking in science education. Laboratory work in the preparation and use of experimental materials.

(Offered 1971-72 and alternate years.)

**EDUC 450. (3) Individualizing Instruction for Continuous Progress**

(Not offered 1970-71.)

**EDUC 490. (3) Principles of Teaching Second Languages**

The application of linguistic principles in teaching second languages including contrastive language analysis, methods, materials; gradation, presentation, repetition, and measurement in lesson development. Attention given to automated language teaching.

Prerequisite: One of Linguistics 100, 210, 360, 390.

(Not offered 1970-71.)

**EDUC 495. (1 ½) Directed Studies**

Research projects, directed reading, or additional course work as approved by the Dean of Education or his designate.

Members of the Faculty.

**EDUC 496. (1 ½) Practicum in Teaching the Mentally Retarded**

Supervised practice in teaching the mentally retarded. A post-session practicum in May will also be required.

Prerequisite: Education 409C (may be taken concurrently).

Second term only.

Mr. Ruth.

(0-0; 0-3)

**EDUC 497. (3) Practicum in Individualizing Instruction**

Opportunities will be provided for team teaching and for the use of teacher aides. (Not offered 1970-71.)

**EDUC 498. (0) Fourth-Year Secondary Seminar**

Members of the Faculty.

(1-0; 1-0)

**EDUC 701. (1) Curriculum and Instruction in Art**

A study of the curriculum organization and techniques of instruction in elementary art. (2-0; 2-0)

**EDUC 705. (1) Basic Concepts in Music**

Introductory course in fundamentals, methods, and materials for elementary classroom teachers. Designed for students with little or no background in music.

First or Second term. (2-0)

**EDUC 706. (1) Music for Classroom Teachers**

Methods, materials, and philosophy of music education for elementary classroom teachers. Designed for students who have had some previous musical experience, for example, private lessons or participation in choirs or bands.

First or Second term. (2-0)

**EDUC 707. (1) Music for Classroom Teachers — Advanced**

Methods, materials and philosophy of music education for elementary classroom teachers. Designed for students with considerable musical background, for example, the A.R.C.T. diploma.

First or Second term. (2-0)

**EDUC 742. (2) Curriculum and Instruction in the Language Arts**

(Primary or Intermediate Grade Emphasis)

A study of the curriculum organization and techniques and materials of instruction in language arts. (3-0; 3-0)

**EDUC 744. (1) Curriculum and Instruction in Elementary Mathematics**

A study of the curriculum organization and techniques of instruction in elementary mathematics. (1-1; 1-1)

**EDUC 745. (1) Curriculum and Instruction in Elementary Science**

A study of the curriculum organization and techniques of instruction in elementary science.

First or Second term. (1-2)

**EDUC 746. (1) Curriculum and Instruction in Elementary Social Studies**

A study of the curriculum organization and techniques of instruction in elementary social studies.

First or Second term. (2-2)

**EDUC 747. (1) Curriculum and Instruction in Elementary Physical Education**

A study of the curriculum organization and techniques of instruction in elementary physical education. (1-1; 1-1)

**EDUC 750-770. Curriculum and Instruction in Secondary School Subjects**

(2-0; 2-0)

**EDUC 750. (1 ½) Art**

**EDUC 753. (1 ½) English**

**EDUC 754. (1 ½ -3) Second Language**

Students with teaching areas in French, German, Latin and Spanish will enrol for this course. Those who present one such teaching area will be credited with 1½ units, and two such areas, 3 units.

**EDUC 755. (1 ½) Geography**

**EDUC 757. (1 ½) Guidance**

**EDUC 758. (1 ½) History**

**EDUC 759. (1 ½) Industrial Education**

**EDUC 761. (1 ½) Mathematics**

**EDUC 762. (1 ½) Music**

EDUC 764. (1 ½) **Physical Education**

EDUC 767. (1 ½) **Theatre**

EDUC 768. (1 ½) **Commerce**

EDUC 769. (1 ½-3) **Science**

Students with teaching areas in biology, chemistry, physics, or general science will enrol for this course. Those who present one such teaching area will be credited with 1½ units; those with two teaching areas will be credited with 3 units.

EDUC 770. (1 ½) **Home Economics**

EDUC 797. (3) **Seminar and Elementary Student Teaching**

For students registered in the professional year, elementary programme. Included in this course is a post-session practicum of three weeks.

Prerequisite: 70 hours approved school experience or consent of Student Teaching Office.

EDUC 798. (3) **Seminar and Secondary Student Teaching**

For students registered in the professional year, secondary programme. Included in this course is a post-session practicum of three weeks.

#### ART EDUCATION

A E 100. (3) **Art Education in the Elementary Schools**

A study of the growth and development of Art Education, classroom management, teaching techniques in art as related to elementary grades.

Mr. Shostak, Mrs. Small, Miss Moody, Mr. Cawood. (3-0; 3-0)

A E 300. (3) **Art Education (Advanced)**

Programme planning and laboratory investigation of art media involved in handling painting, design, graphics and other two-dimensional problems at the elementary level.

Art Education Faculty. (3-0; 3-0)

A E 301. (3) **Three-Dimensional and Crafts**

Teaching methods and techniques involving carving, modelling, constructions, and other three-dimensional problems and crafts related to the elementary grades.

Mrs. Small. (3-0; 3-0)

A E 302. (3) **Drawing and Painting for Elementary Schools**

Development of sensory perception; exploration of visual imagery found in both the natural and manmade environment; expression of an emerging personal visual imagery using drawing, painting, and projected light techniques. Emphasis throughout will be on personal experience and expression with qualifying discussion on its application to elementary leadership in art. This will include work with children and a parallel study of the visual development of children.

Mr. Cawood. (3-0; 3-0)

A E 400. (3) **Special Study**

This will include a study of a particular field of Art Education carried out under the direction of a member of Faculty. A lecture-demonstration study of the growth and development of children in relation to creative expression, including the philosophy of art education.

Miss Moody (Seminar). Other Art Education Faculty (Special Problems). (3-0; 3-0)

#### MUSIC EDUCATION

M E 100. (0) **Laboratory Chorus**

Materials and rehearsal techniques for use with elementary and secondary school choral groups. Emphasis upon rehearsal rather than performance.

Open to all students. It is strongly recommended that all music education majors participate each year.

**M E 105. (1 ½) Music Fundamentals for Classroom Teachers**

Introduction to the content of music through an investigation of its melodic, rhythmic, harmonic, and formal structure. The course is designed for students with teaching areas in subjects other than music and who have had little or no background in music.

**M E 106. (1 ½) Elementary School Music Materials and Activities**

Survey of texts and materials for use in the elementary classroom music program. Use of materials in a sequential program involving singing, listening, playing, rhythmic and creative activities.

Co- or Prerequisite: M E 105 or equivalent.

**M E 107. (1 ½) Educational Materials for Listening**

Elements of musical style and performance media in historical perspective. Emphasis upon works suitable for use in the elementary school classroom. Listening, lectures, reading.

Co- or Prerequisite: M E 106.

**M E 108. (1 ½) Piano Class for Classroom Teachers**

Development of piano keyboard skills useful in classroom music.

Co- or Prerequisite: M E 106.

**M E 305. (3) Music Education (Advanced)**

A study of modern methods, materials, objectives, and philosophy pertaining to the teaching of music in elementary and secondary schools.

Prerequisite: Music Education 105 or approval of instructor. (3-0; 3-0)

**LIBRARY EDUCATION**

**L E 430. (3) Selection and Organization of Library Materials**

The library as a resource centre; collecting, evaluating and organizing materials; cataloguing books, etc. (3-0; 3-0)

**L E 431. (3) School Library Services**

The role of the school library, programmes and services, administering the library, staffing, supervision, etc.

(Not offered 1970-71.)

**PHYSICAL EDUCATION**

**P E 100. (0) Basic Skills in Physical Education Activities**

Proficiency in the skills in the following areas: areas 1, 2, and 3; one of the activities in each of areas 2, 5, and 6; five of the activities in area 7 for men or four in area 7 for women. (Minimum of 15 hours per activity). Normally work in this course will be spread over two years.

Area 1	Swimming
Area 2	Track and Field
Area 3	Gymnastics (intermediate)
Area 4	Badminton, Tennis
Area 5	Wrestling, Dance
Area 6	Skating, Curling, Golf, Archery
Area 7 (Men)	Softball, Basketball, Soccer, Volleyball, Rugby, Ice Hockey, Field Hockey
Area 7 (Women)	Softball, Basketball, Soccer, Volleyball, Field Hockey

NOTE: Students may be exempted from P E 100 or part thereof by demonstrating proficiency in a skills test.

**P E 142. (1 ½) Introduction to Health Education**

An introduction to the physical, emotional and social aspects of human growth and human interpersonal relationships.

First or Second term.

Dr. Collis.

(3-0)

**PE 143. (1 1/2) 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.

First or Second term.

Mr. Olenick, Dr. Martens. (3-0)

**PE 149. (3) Physical Education in Elementary Schools**

Content of the physical education programme in the elementary school; principles and techniques of instruction; intramural organization. Reasonable performance of skills by student is required and a percentage of the grade is based on performance.

NOTE: P.E. 149 is not acceptable for credit on a physical education teaching area. Any student who has elected to do P.E. 149 and then is accepted into the physical education teaching area cannot count the credit for this course toward his degree.

Members of the Faculty. (2-2; 2-2)

**PE 150. (1 1/2) Theory and Practice in Fundamental Movement**

A study of basic movement skills and basic principles of movement. Practical aspects include rhythmic, tumbling, skills, and movement education.

Mrs. McLaughlin, Mr. Docherty. (2-2)

**PE 241. (3) Human Physiology and Anatomy (1970-72)**

Structure and function of the following systems of the human body; skeletal, articular, muscular, circulatory, respiratory, digestive, nervous, urinary and reproductive.

Dr. Eckerson. (2-2; 2-2)

**PE 340. (0) Methods and Skills in Physical Education (1970-71 Only)**

Skill improvement and teaching techniques in: Gymnastics (II), Soccer (men) or Field Hockey (women), Volleyball, Tennis. Extra-class teaching is assigned at the Y.M.-Y.W.C.A.

Members of the Faculty. (0-3; 0-3)

**PE 341. (1 1/2) 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.

Prerequisite: PE 241 or permission.

Second term only.

Mr. Docherty, Dr. Collis. (0-0; 3-0)

**PE 342. (1 1/2) History and Principles of Physical Education**

Interpretative study and analysis of the principles and practices of physical education through their historical development; current trends, social and cultural implications; relationship to education.

First term only.

Mr. Carr. (3-0; 0-0)

**PE 343. (1 1/2) Recreation in School and Community**

Nature of recreation; its function and scope; school-community administration and programmes; leadership in schools, camps, and communities; inter-relationship of these programmes.

Second term only.

Mr. Olenick. (0-0; 3-0)

**PE 344. (1 1/2) 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 re-training of injured areas.

Prerequisite: PE 241 or permission of instructor.

Second term only.

Dr. Eckerson. (0-0; 3-0)

**PE 350. (1 1/2) Theory and Techniques of Teaching Skills in Team Games**

Methods of teaching softball, basketball, soccer, field hockey, volleyball, rugby.

Prerequisites: P.E. 100, 150.

(Not offered 1970-71.)

**PE 440. (0) Methods and Skills In Physical Education (1970-72)**

Skill improvement and teaching techniques in:

(a) Track and Field (II)

(b) Elective A: *One* of Curling, Golf.

(c) Elective B; (Women only) *Two* of Basketball (II), Field Hockey (II),  
Gymnastics (III), Dance.

(d) Elective C: (Men only) *Two* of Basketball (II), Soccer (II),  
Gymnastics (III), Wrestling, Rugby.

Members of the Faculty.

(0-3; 0-3)

**PE 441. (1 1/2) 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.

First term only.

Dr. Collis.

(3-0; 0-0)

**PE 442. (1 1/2) Perceptual-Motor Foundations**

Implications of perceptual-motor development for learning; psychology of motor-skill acquisition.

Dr. Collis.

(3-0; 0-0)

**PE 443. (1 1/2) Organization and Administration of Physical Education**

Budget and finance; personnel; facilities, equipment and supplies; scheduling; public relations; organization and management of physical education and athletics.

Second term only.

Dr. Martens.

(0-0; 3-0)

**PE 444. (1 1/2) Evaluation in Health and Physical Education**

Use of tests and measurements in physical education; principles of test construction; test administration and interpretation of results; use of evaluating equipment in a variety of physical education tests.

Prerequisite: Education 301.

First term only.

Mr. Docherty.

(3-0; 0-0)

**PE 445. (1 1/2) Developmental and Adaptive Physical Education**

Methods of identifying and evaluating the atypical child and application of a physical education programme to his needs; case-study techniques, developmental programmes; basic therapeutic exercises techniques.

First term only.

Dr. Eckerson.

(3-0; 0-0)

**PE 450. (1 1/2) Theory and Techniques of Teaching Skills in Individual Activities**

Methods of teaching minor games, swimming, badminton, tennis, wrestling, dance, track and field, gymnastics.

Prerequisites: P.E. 100, 150.

(Not offered 1970-71 or 1971-72.)

**PE 460. (1 1/2) Advanced Skills: Coaching and Officiating**

In-depth study of two areas selected by the student. Advanced skill level, knowledge and ability to coach and officiate will be required in the two areas.

Prerequisites: P.E. 100, P.E. 150 (Electives; Badminton, Basketball, Soccer, Field Hockey, Volleyball, Track and Field, Dance, Gymnastics, Swimming, Softball, Tennis, Rugby, Wrestling).

Members of the Faculty.

(1-1; 1-1)

## INDUSTRIAL EDUCATION

\*These courses are offered only at the British Columbia Vocational School, Burnaby.

### I E 250. (3) **Technology of Woodworking I**

Fundamentals of bench and machine woodwork; design and layout; hand and machine tool maintenance. (2-4; 2-4)

### I E 251. (3) **Technology of Metal Working I**

An introduction to bench metalwork and light machine work; lathe and sharper operations; heat treatment of carbon steel; forging; founding; welding and related metallurgy; project planning; teaching aids and shop management. (2-4; 2-4)

### I E 253. (3) **Principles of Technical Drawing**

Lettering; descriptive geometry; orthographic projection; sections; auxiliary views; sketching; technical illustrating; fastenings; methods of drawing reproduction; surface development. (2-4; 2-4)

### I E 254. (1 ½) **Oxyacetylene and Arc Welding**

Oxyacetylene: fusion welding mild steel; flame cutting; testing and inspection of welds; bronze welding; silver alloy brazing, aluminum welding. Arc: practice in common types of weld in mild steel; bronze welding. (1-2; 1-2)

### I E 255. (3) **Electricity in Industrial Education I**

D.C. fundamentals and circuits; D.C. motors and generators; signal circuits; electro-chemical devices; D.C. measurement; residential wiring circuits. (3-3; 3-3)

### I E 256. (3) **Electronics in Industrial Education I**

Fundamental circuits; vacuum tubes and semi-conductor devices as applied amplifiers and power supplies; measurements.

Prerequisite: Industrial Education 255. (0-0; 3-3)

### I E 257. (1 ½) **Industrial Coatings**

Theory and practice of applying industrial finishing materials; manual and mechanical application to wood, metal and synthetic surfaces.

Prerequisite: Industrial Education 250, 251. (1-2; 1-2)

### I E 258. (3) **Power Mechanics Theory and Practice**

Heat engines—internal and external combustion types; fuels; mechanical and hydraulic power transmission; power control. (3-3; 3-3)

### I E 350. (3) **Technology of Woodworking II**

Design and layout of contemporary furniture; elementary finishing; production principles and techniques.

Prerequisite: Industrial Education 250. (2-4; 2-4)

### I E 351. (3) **Technology of Metalworking II**

An intermediate course in bench metalwork and light machine work; operations on lathe, shaper, surface grinder and milling machine; heat treatment; forging, welding and related metallurgy; student design and manufacture individual items.

Prerequisite: Industrial Education 251. (2-4; 2-4)

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### I E 353. (3) **Design in Industrial Education**

Functional structural and aesthetic aspects of design applied to Industrial Education projects. (2-4; 2-4)

### I E 354. (3) **Patternmaking and Foundry Practice**

Influence of foundry techniques and metallurgy on design; practical application of various types of patterns; core box making; green sand moulding; core-making; gating; practice; melting and pouring brass, iron, and aluminum alloys.

Prerequisite: Industrial Education 251. (2-4; 2-4)

\* I E 352 (3) **Technology of Building Construction I**  
Prerequisite: Industrial Education 250.

(2-4; 2-4)

- I E 355. (3) **Electricity in Industrial Education II**  
 Single and polphase circuit analysis, alternating current machinery and controls; generation and distribution of electrical energy.  
 Prerequisite: Industrial Education 255. (3-3; 3-3)
- I E 356. (3) **Electronics in Industrial Education II**  
 Data generation, transmission, and receiving systems; principles of HF, VHF, UHF, and microwave communication systems. R.F. measurements.  
 Prerequisite: Industrial Education 256. (3-3; 3-3)
- I E 357. (3) **Materials Technology in Industrial Education**  
 Wood and materials directly derived from wood; metals and alloys; synthetics; adhesives; physical testing of materials.  
 Prerequisites: Industrial Education 250, 251. (3-3; 3-3)
- I E 358. (3) **Automotive Theory and Practice I**  
 General construction of power plant, auxiliary systems, fuels, carburetion, lubrication, cooling systems, clutch, gear box, rear axles, drive shafts, universal joints, front suspension and steering gears, brakes.  
 Prerequisites: Industrial Education 258, 251. (2-4; 2-4)
- I E 359. (1 ½) **Measurement Theory and Practice**  
 Principles and practices of electrical measurements; design and construction of measurement devices.  
 Prerequisites: Industrial Education 255, 256. (1-2; 1-2)
- I E 450. (3) **Millwork Theory and Practice**  
 Furniture and fixture design; layout and production; custom and mass production methods; prefabrication techniques.  
 Prerequisite: Industrial Education 250. (2-4; 2-4)
- I E 451. (3) **Technology of Metalworking III**  
 Methods of forming, joining, machining heat treatment and finishing of metals. Design analysis and the development of manufacturing techniques.  
 Prerequisite: Industrial Education 351. (2-4; 2-4)
- I E 451. (3) **Technology of Building Construction II**  
 Design and construction of industrial commercial buildings; level and transit; estimating and contracting.  
 Prerequisites: Industrial Education 250, 352. (2-4; 2-4)
- I E 453. (1 ½) **Problems in Graphic Representation**  
 Specific drafting problems associated with each of the following specialties; (a) Construction: millwork and furniture drawings, small boat design; national and local building codes; descriptive geometry. (b) Metals-Mechanics; Surface development; gearing; descriptive geometry. (c) Electricity-Electronics: Layout and representation of problems in electrical and electronic design.  
 Prerequisite: Industrial Education 253. (1-2; 1-2)
- I E 455. (3) **Problems in Electrical Equipment Production**  
 Fabrication and assembly of electrical and electronic equipment; techniques applicable to the school situation; evaluation of design and manufacturing technique.  
 Prerequisite: Industrial Education 255, 256. (3-3; 3-3)
- I E 456. (3) **Electronics in Industrial Education III**  
 Transducers; Processors; Transmission; Deprocessing; Transducers for Readout and Display.  
 Prerequisite: Industrial Education 256. (3-3; 3-3)
- I E 457. (3) **Technology of Synthetic Materials**  
 Principles and practices of synthetic materials lay-up; forming and extrusion; design and production of moulds and plugs; die casting.  
 Prerequisite: Industrial Education 250, 251. (2-4; 2-4)

**IE 458. (3) Automotive Theory and Practice II**

Advanced automotive design and repair; diagnosis of mechanical and electrical faults; evaluation of modern servicing procedures.

Prerequisite: Industrial Education 358.

(2-4; 2-4)

**IE 459. (3) Technical Problems**

This course gives the student the opportunity to conduct directed study in an area within his technical field of specialization. Study will culminate in a written paper.

Prerequisites: Completion of a technical specialty or equivalent.

(1-5; 1-5)

### GRADUATE COURSES

Students should consult the Graduate Advisor of the Faculty of Education concerning the courses offered in any particular year; such offerings will depend upon student programme needs and the availability of instructors.

Further information about programmes, courses, and prerequisites is given in a mimeographed bulletin *Graduate Studies in Education*.

**EDUC 500. (1 ½) Learning Principles**

First term only.

Dr. Downing.

**EDUC 501. (1 ½) Theory of Measurement**

First term only.

Dr. Ayers.

**EDUC 502. (1 ½) Seminar in Educational Evaluation**

**EDUC 503. (1 ½) Verbal Learning**

Second term only.

Mr. Ruth.

**EDUC 504. (1 ½) Psychology of Conceptual Learning**

Second term only.

Dr. Downing.

**EDUC 505. (1 ½) Basic Concepts in Human Development**

First term only.

Dr. Chabassol.

**EDUC 506. (1 ½) Selected Topics in Human Development**

Second term only.

Dr. Knowles.

**EDUC 507. (1 ½) Psychology of Individual Differences**

Second term only.

Dr. Timko.

**EDUC 508. (1 ½) Theories of Learning**

First term only.

Miss Timmons.

**EDUC 509. (1 ½) Psychology of Classroom Learning**

Second term only.

Dr. Thomson.

**EDUC 510. (1 ½) Psychology of Group Differences**

First term only.

Dr. Myers.

- EDUC 512. (1 ½) **Measurement in the Affective Domain**  
 First term only.  
 Dr. Mason.
- EDUC 515. (1 ½) **Advanced Diagnosis of Learning Disabilities**  
 Prerequisite: Education 402, 415, 416, or consent of instructor.  
 First term only.  
 Dr. Tinney.
- EDUC 516. (1 ½) **Advanced Remediation of Learning Disabilities**  
 Prerequisite: Education 515, or consent of instructor.  
 Second term only.  
 Dr. Tinney.
- EDUC 517. (3) **Practicum in Counselling**  
 Dr. Knowles.
- EDUC 518. (1 ½) **Seminar in Counselling Psychology**  
 First term only.  
 Dr. Hawkes.
- EDUC 519. (1 ½) **Advanced Seminar in Counselling Psychology**  
 Second term only.  
 Mr. Viesti.
- EDUC 520. (3) **Seminar in the Philosophy of Education**
- EDUC 521. (3) **Educational Classics**
- EDUC 531. (1 ½) **Administration of Public Education In Canada**  
 First term only.  
 Dr. Farquhar.
- EDUC 532. (1 ½) **Administration of the Educational Programme**  
 Second term only.  
 Dr. Farquhar.
- EDUC 533. (3) **Concepts in Administrative and Supervisory Behaviour In Education**  
 Dr. Farquhar.
- EDUC 540. (1 ½) **Research in Curriculum and Instruction in the Elementary Grades**  
 Section 1 Reading — First term only  
 Section 2 Language — Second term only. Dr. Chang.  
 Section 3 Social Studies  
 Section 4 Arithmetic  
 Section 5 Science
- EDUC 541. (1 ½) **Research In Curriculum and Instruction in the Secondary Grades**  
 Section 1 English  
 Section 2 Geography  
 Section 3 History  
 Section 4 Mathematics  
 Section 5 Science
- EDUC 556. (1 ½) **Basic Concepts of Curriculum Development**
- EDUC 557. (1 ½) **Applied Concepts of Curriculum Development**
- EDUC 558. (1 ½) **Development and Implementation of the Curriculum in a Specific Area**

EDUC 560. (1 ½) **Statistical Methods In Education**

First term only.

Mr. Muir.

EDUC 561. (1 ½) **Methods in Educational Research**

First term only.

Mr. Muir.

EDUC 562. (1 ½) **Advanced Statistical Methods in Education**

Second term only.

Mr. Muir.

EDUC 570. (3) **Motor Learning**

EDUC 572. (3) **Advanced Exercise Physiology**

EDUC 590. **Special Problems** (credit to be determined)

EDUC 599. **Thesis** (credit to be determined)

EDUC 617. **Internship in Counselling Psychology** (credit to be determined)

EDUC 618. **Doctoral Seminars in Counselling Psychology** (credit to be determined)

EDUC 699. **Ph.D. Dissertation** (credit to be determined)



*Faculty of Fine Arts*

# FACULTY OF FINE ARTS

The Faculty of Fine Arts comprises the Departments of History in Art, Music, Studio Visual Arts, and Theatre, and offers courses leading to the degree of Bachelor of Arts, in History in Art; Bachelor of Music; Bachelor of Fine Arts with majors in Theatre and in the Studio Visual Arts. Certain courses offered in the Faculty of Fine Arts have been approved for credit in the Faculty of Arts and Science and in the Faculty of Education.

Graduate work is offered in Music and Theatre. Students are advised to consult the Faculty of Fine Arts regarding additional offerings that were in the planning stage at the time of publication of this Calendar. (See section of calendar on Faculty of Graduate Studies for details of programmes and degrees).

## **Qualifications for Admission**

See pages 38 - 50 inclusive of the Calendar.

## **General Regulations**

Calendar regulations governing registration, fees, and academic advancement (see pages 50 - 63), apply to all students registered in the Faculty of Fine Arts. Special regulations are set out under the Departmental offerings.

## **COURSE OFFERED JOINTLY BY ALL DEPARTMENTS**

### **FA 103. (3) Language of the Arts**

An examination of perception and the language of the arts; an exploration of the creative process. Open only to students enrolled in the Faculty of Fine Arts.

(3-0; 3-0)

# DEPARTMENT OF HISTORY IN ART

Alan Gowans, M.A. (*Tor.*), M.F.A., Ph.D. (*Princeton*), Professor and Chairman of the Department.

Partha Mitter, B.A. (*Calcutta*), M.A. (*London*), M.A. (*Cantab.*), Lecturer.

John C. Freeman, B.A. (*Harpur*), M.A. (*Delaware*), Assistant Professor and Curator of the Maltwood Museum. (Leave of absence 1970-71).

Richard K. Morris, B.A. (*Cambridge*), M.A. (*London, Courtauld*), Lecturer.

## MAJOR PROGRAMME LEADING TO THE DEGREE OF B.A.

The history of art is a specialized branch of historical study, differing from history proper in that, instead of relying primarily on the interpretation of written documents, it interprets architecture, painting, furniture, sculpture and other arts as evidence of how past generations lived and thought. It follows that history in art is at once a specialized discipline, demanding particular knowledge about historical art as well as ability to read its "language," and the broadest of all humanistic studies; full interpretation of historic art requires study not only of cognate arts such as literature and music and drama, but also of many related disciplines ranging from social sciences to theology and aesthetics. No undergraduate programme could hope to offer an entirely adequate background in all these areas, and students should understand that the B.A. degree in History in Art represents only a sound foundation for further growth toward fuller awareness and deeper understanding of history as revealed in art, towards that "wisdom" which, as T. S. Eliot once declared, "educational institutions cannot teach because it cannot be learnt in the time or wholly in such surroundings, but which they can teach us to desire, which they can teach us how to go about acquiring." Fortunately, because art and architecture in some form surround everyone everywhere, the learning process can and should proceed through life for graduates in this field as in no other, whether or not they go on to formal graduate school.

Within these limitations, however, the Department's Programme of study is intended to make this foundation as broad as feasible, its wide range of electives providing at least an opportunity to sample the scope of possibilities within the discipline.

To graduate as a B.A. majoring in history in art students require 21 units (seven courses) in history in art, plus 39 units (13 courses) of free electives including 3 units at the 300 or 400 level. The department also requires students to pass a reading knowledge test in a language other than their own. This test will be administered by the department at any time, on the student's request. Should students take formal courses in a foreign language in order to pass this test, two of them (6 units) may count as free electives towards the degree.

In earlier calendars, a specific programme of required history in art courses and electives was set out for history in art majors. In the present period of rapid changes of courses and curricula in so many departments of the University, it has proved very difficult for students to follow such a specific programme, and in some cases impossible; often, too, changes in course content have eliminated the original reason for requiring them. Accordingly, from 1970-71 on these specific requirements are superseded by the general requirements set forth above. However, it is worth summarizing this programme below as an example, and to give an idea what sort of electives seem appropriate for the study of history in art. The Chairman or Department members will gladly assist with advice on request.

In their first two years, it is suggested that students begin learning the specialized language of history in art by which historical monuments can be read, first in general terms, and then in specific application to the art of primitive cultures, classical and other non-Western civilizations, and the medieval period of Western civilization; electives are suggested relevant to these areas. In the third year, history in art and elective courses emphasize the Renaissance and Baroque periods (c. 1400-1750); in the fourth year, art and culture of the two centuries since 1750.

Beginning with the third year, two areas of emphasis are possible within the programme. Either students may elect to pursue broad history in art studies, with a view to possible graduate work in the discipline, or elect a narrower emphasis on North American culture with a view to work in museums, historical societies, national monuments, and the like. These programmes are not mutually exclusive, of course;

both provide an adequate background for either graduate or museum work, but the knowledge of archaeological and museum display techniques provided by the one would obviously be more helpful in museum work than in the ordinary graduate school, and vice-versa for the introduction to scholarly research techniques provided by the other.

An integral part of the History in Art programme will be the John and Katharine Maltwood Memorial Museum at Royal Oak, dedicated to study of the Arts and Crafts movement from William Morris to the 1920's in all countries and media, especially architecture and furniture. With a specialized library and seminar facilities, work in its collections will give students a chance to work directly with materials and have first-hand experience in the operation of a University museum.

#### TYPICAL HISTORY IN ART PROGRAMMES

Years 1 and 2			
<i>Year 1</i>	<i>Units</i>	<i>Year 2</i>	<i>Units</i>
HA 120	3	HA 320	3
Eng. 110 or 120	3	Eng. 200 or 201	3
100 level language	3	200 level language	3
One of:		Two of:	
Clas. 100		Anth. 305, 306, 310	
Hist. 101, 102	3	Clas. 100, 330, 340	
One of:		Hist. 204	
Anth. 100		Ling. 100, 210	
Geog. 101, 303	3	Theatre 310	6
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	15		15
Years 3 and 4			
<i>Year 3</i>	<i>Units</i>	<i>Year 4</i>	<i>Units</i>
HA 340		HA 360	
HA 441 or 481	6	HA 380	
One of:		HA 490	9
Geog. 307		One of:	
Anth. 441	3	Geog. 307	
One of:		Anth. 441	3
Hist. <del>242, 210</del>		One of:	
Hist. <del>200, 303, 240, 350</del>		Econ. 101, 321	
Hist. <del>305, 405</del>		Eng. 203	
Hist. <del>341, 401</del>		Hist. 200, 212, 303, 305,	
Hist. <del>342, 301</del>	3	311, 312	
One of:		Pol. Sc. 300, 310	
Class. Latin lit. in transl.		Music 110 or 210	
Hist. 200		Theatre 311 or 312	3
Eng. 410 or 413 or 418			
or 424 or 425			
Music 110			
Theatre 310 or 311	3		
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#### COURSES OFFERED

†HA 100. 3) **Survey of World Art**  
(Summer Session only).

†\*HA 120. (3) **Language of History in Art**

A theoretical course designed to provide an introduction to the understanding of art as evidence for history, and to prepare the student for qualified judgment of

\*Approved for credit in the Faculty of Arts and Science.

†Approved for credit in the Faculty of Education.

traditional and contemporary art forms. Preference in registration given to First and Second Year students.

Text: Lecture synopses in Library.

Dr. Gowans, members of the Department and teaching assistants. (3-0; 3-0)

\*H A 320. (3) **Ancient, Medieval, and Non-Western History in Art**

A basic course introducing students to the principles and basic material of History in Art in Western civilization from the 10th to the 15th century, as well as the civilization of Egypt, Mesopotamia, Greece and Rome.

Some study will also be made, as occasion allows, of pre-historic and primitive History in Art, the arts of the Levant from ancient Persian to Islamic times, India and the Far East.

Texts: Norris K. Smith, *Medieval Art*; P. Kidson, *Medieval World*.

Mr. Morris. (Second term). (3-0; 3-0)

\*H A 340. (3) **Renaissance and Baroque Art in Western Europe**

The evolution of art and architecture as the expression of ideas from ca. 1400-1750, with special emphasis on the art of "Old Masters" such as van Eyck, Ghiberti, Donatello, van der Weyden, Leonardo, Raphael, Michelangelo, Titian, Bernini, Rembrandt, etc. (3-0; 3-0)

†\*H A 360. (3) **Painting since 1750**

An examination of the development in painting over the last 200 years with special emphasis on the changing concept of what art is and what artists do in and for society. The parallel developments in sculpture will be considered. (3-0; 3-0)

\*H A 380. (3) **Architecture since 1750**

Basic developments in the theory and practice of achitecture in Western Europe, Canada and U.S.A. over the last 200 years, with special emphasis on architecture as the expression of social, economic and religious ideas. (3-0; 3-0)

\*H A 441. (3) **Special studies in Renaissance Tradition**

Specialized aspects of painting, sculpture and architecture in Europe from 1300-1500, or later manifestations of the tradition then established. (3-0; 3-0)

\*H A 481. (3) **History of Architecture in North America**

Study of architectural developments in Canada and U.S.A. from the 17th century to the present, with special emphasis on interiors and furniture, and the expression of distinctively North American cultural attitudes.

Texts: Alan Gowans, *Images of American Living*; *Building Canada*. (3-0; 3-0)

\*H A 490. (3) **Directed Studies**

This course may be taken more than once, in different fields, at the discretion of the Division.

\*Approved for credit in the Faculty of Arts and Science.

†Approved for credit in the Faculty of Education.

## DEPARTMENT OF MUSIC

- Phillip T. Young, B.A. (*Bowdoin*), Mus.M. (*Yale*), Visiting Associate Professor and Chairman of the Department.
- Howard B. Barnett, B.A., Mus.B. (*Tor.*), M.A., Ph.D. (*S. Calif.*), A.R.C.T. (*Tor.*), Associate Professor.
- George W. Corwin, B.S. (*Ithaca*), M.A., D.M.A. (*Rochester*), Visiting Associate Professor.
- Wilburn Newcomb, B.Mus. (*Cincinnati Cons. of Music*), M.A. (*Indiana*), D.Phil. (*Göttingen*), Associate Professor.
- Roger W. Bray, M.A., D.Phil. (*Oxon.*), Assistant Professor.
- Derek E. Healey, B.Mus. (*Durham*), F.R.C.O., A.R.C.M., Lecturer.
- Leslie Thimmig, B.Mus. (*Eastman*), M.M.A. (*Yale*), Lecturer.

### VICTORIA CONSERVATORY OF MUSIC

Students in the Bachelor of Music programme and in the music teaching area in the Bachelor of Education programme receive their solo performance tuition from the faculty of the Conservatory which is affiliated with the University of Victoria. See page 303.

### FACULTY OF THE VICTORIA CONSERVATORY OF MUSIC

- Robin Wood, F.R.A.M., Principal, Victoria Conservatory.
- Rodney Webster, A.R.C.T., Vice-Principal, Victoria Conservatory.
- Juliet Bray, M.A. (*Oxon.*), A.R.C.M. piano and theory.
- Ronald de Kant, Principal clarinet, Vancouver Symphony.
- Howard Denike, B.Mus. (*Wash.*), A.R.C.T., clarinet.
- David Fisher, Instructor, Canadian Forces, trumpet.
- Elfreda Gleam, F.T.C.L., L.R.A.M., violin.
- Donald Haig-Robinson, L.R.A.M., A.R.C.M., piano.
- Derek Healey, B.Mus. (*Durham*), F.R.C.O., A.R.C.M., organ and harpsichord.
- Margaret Hendry, A.T.C.M., piano.
- James Hunter, Graduate, Toronto Conservatory, cello.
- Jack Kessler, Graduate, Royal Academy, Budapest, violin.
- Zdenek Kriz, viola.
- Else Menting, A.R.C.T., piano.
- Jan Menting, Instructor, Canadian Forces, flute.
- Barry Moncur, Instructor, Canadian Forces, clarinet.
- Charles Palmer, M.A., B.Mus. (*Oxon.*), A.R.C.M., A.R.C.O., piano.
- Edwin Phillips, Classical guitar.
- Richard Proudman, M.A., Mus.B. (*Cantab.*), L.R.A.M., A.R.C.M., organ and piano.
- Noel Smith, A.R.C.M., piano.
- Marjorie Tebo, A.L.C.M., L.R.S.M., piano.
- Leslie S. Thimmig, B.M. (*Boston*), M.A.T. (*Yale*), horn.
- Madeleine Till, L.R.A.M., G.R.S.M. (*London*), piano.
- Barry Wells, A.R.C.T., piano.
- Catherine Wendol, A.R.A.M., L.R.A.M., voice.
- Jacqueline Wood, L.R.A.M., A.R.C.M., piano.
- Winifred Wood, A.M.M. (*Man.*), A.R.C.M., L.R.S.M., A.R.A.M., piano.
- Catherine Young, B.M., M.M. (*Eastman*), voice.

## GENERAL REQUIREMENTS

In addition to fulfilling general requirements for the Faculty of Fine Arts, students seeking admission to the Bachelor of Music programme must provide evidence of marked musical ability\*\* and should arrange an interview with the Department of Music (477-6911, Local 361), which should take place during March or April or at the latest in September, before registering for any music course.

## UNDERGRADUATE PROGRAMMES

For students who wish to prepare themselves for careers in music, graduate study, etc., the Department of Music offers majors in Composition and Theory, Music History and Literature, General Programme, and Performance, leading to the degree of Bachelor of Music.

## PROGRAMME OF COURSES

All B.Mus. students, regardless of their choice of Major, will take a common first-year programme. However, in this first year students may take an extra unit in Composition (see Music 105) with the permission of the Department. Students intending to proceed to the Major in Performance should take Music 145 instead of Music 140. Instruction in elementary keyboard skills may also be required, where necessary.

<i>Year 1</i>	
Music 100	3
Music 110	3
Music 115	2
One of: Music 140, or 145	1 or 3
*Two of: Music 150, 151, 152, 153, 154, 155	0
English 100	3
*Non-Music elective	3
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\*To be chosen in consultation with the Department of Music.

Students in the General Programme who intend to teach music in the public school system should prepare themselves in a second teaching area. Before entering the fifth professional year in the Faculty of Education a student must have completed 15 units in this other academic discipline. (See the Faculty of Education regulations).

Towards the end of the first year, each student will be expected to declare his choice of major and will be assigned an advisor with whom he will develop a programme of studies related to his needs and abilities.

Typical programmes might be:

### Major in Composition and Theory

<i>*Year 2</i>		<i>*Year 3</i>		<i>*Year 4</i>	
200	3	300	3	400	3
205	3	305	3	405	3
Music History elective	3	Music History elective	3	406	3
Non-Music elective	3	356	3	410	1
240	1	340	1	440	1
335	3	Non-Music elective	3	Non-Music elective	3
				Music elective	3
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\*Students in all years will normally take two of Music 150, 151, 152, 153, 154, 155.

\*\*Students intending to elect the Performance Major are advised that the Pre-requisite to this programme is the Performers' A.R.C.T. diploma or equivalent evidence of ability.

**Major in Music History and Literature**

*Year 2		*Year 3		*Year 4	
2 Music History electives	6	2 Music History electives	6	2 Music History electives	6
200	3	300	3	499	3
240	1	340	1	410	1
2 non-music electives	6	390	3	440	1
		Non-music elective	3	356	3
				Non-music elective	3
	<hr/> 16		<hr/> 16		<hr/> 17

**Major in General Programme**

*Year 2		*Year 3		*Year 4	
200	3	300	3	456	3
Music History elective	3	356	3	410	1
One of: 330, 331, 332	2	360	3	440	1
240	1	**Two of Music. Ed. 106, 108, 305, 306, 307, or 308, or elective	3	Music History elective	3
335	3	One of 330, 331, 332	2	Two non-music electives	6
Non-music elective	3	340	1	**Music elective	2 or 3
		Non-music elective	3		
	<hr/> 15		<hr/> 18		<hr/> 16 or 17

**Major in Performance**

*Year 2		*Year 3		*Year 4	
245	3	345	3	410	1
200	3	300	3	One of 313, 314, 315	3
One of 313, 314, 315	3	390	3	445	3
335	3	One of 313, 314, 315	3	446	3
Non-music elective	3	Non-music elective	3	447	3
				Non-music elective	3
	<hr/> 15		<hr/> 15		<hr/> 16

\*Students in all years will normally take two of Music 150, 151, 152, 153, 154, 155.

\*\*Students intending to proceed to the Faculty of Education for teacher training are advised to elect the third instrumental techniques course (Music 330, 331, 332) not already taken, in their fourth year.

**UNDERGRADUATE COURSES**

**LANGUAGE OF MUSIC**

\*†MUS 100. (3) *Language of Music I*

General musicianship and the study, analysis and practice of elementary choral and instrumental harmony and counterpoint.

Prerequisite: Evidence of music training acceptable to the Department.

Students will be expected to have a thorough knowledge of Clough, *Scales, Intervals, Keys and Triads*.

Texts: Piston, *Harmony*; Des Marais, *Workbook to Piston's "Harmony"*; Kraft, *A New Approach to Ear Training*; Thinan, *A Guide to Elementary Harmony*.

The course by its nature requires weekly assignments in harmony, analysis and other related topics.

Members of the Department.

(2-1; 2-1)

\*Approved for credit in the Faculty of Arts and Science.

†Approved for credit in the Faculty of Education.

\*†MUS 200. (3) **Language of Music II**

A survey of theory and practice from the Renaissance to the present day.

Prerequisite: Music 100.

The course by its nature requires assignments in harmony, analysis and other related topics. (3-1; 3-1)

\*†MUS 300. (3) **Language of Music III**

Style and creativity. An analysis of structure and form; the experiencing of composition at the level of practice.

Prerequisite: Music 200.

(3-2; 3-2)

\*†MUS 400. (3) **Language of Music IV**

A study of music commencing c.1900, including the influence of jazz, rock and non-Western music upon contemporary idioms. (3-0; 3-0)

### COMPOSITION

MUS 105. (1) **Music Composition I**

Introduction to Composition.

(2-0; 2-0)

†MUS 205. (3) **Music Composition II**

Prerequisite: Permission of Instructor.

(2-1; 2-1)

MUS 305. (3) **Music Composition III**

Prerequisite: Music 205.

(2-1; 2-1)

MUS 405. (3) **Music Composition IV**

Prerequisite: Music 305.

MUS 406. (3) **Seminar in Composition**

Prerequisite: Music 305.

For fourth year composition majors only.

### MUSIC HISTORY AND LITERATURE

\*†MUS 110. (3) **Introduction to Music History and Literature**

A survey of music literature in the changing cultural patterns of Western civilization from antiquity to the present day.

Text: Grout, *A History of Western Music*.

Essays will be assigned.

(3-0; 3-0)

MUS 115. <sup>2</sup>(3) **The elements of Music**

A study of the technical, historical, and aesthetic materials necessary to the critical evaluation of music. (2-0; 2-0)

\*†MUS 310. (3) **Music of the Ancient and Medieval Periods**

A study of ancient and medieval music up to c.1450.

Prerequisite: Music 110.

(3-0; 3-0)

\*†MUS 311. (3) **Music of the Renaissance**

A study of music from c.1400-c.1600.

Prerequisite: Music 110.

(3-0; 3-0)

\*†MUS 312. (3) **Music of the Baroque Era**

A study of music from c.1600 - c.1750.

Prerequisite: Music 110.

No specified text. Regular assignments.

(3-0; 3-0)

\*Approved for credit in the Faculty of Arts and Science.

†Approved for credit in the Faculty of Education.

- \*†MUS 313. (3) **Music of the Classical Era**  
A study of music from c.1730 - c.1830.  
Prerequisite: Music 110. (3-0; 3-0)
- \*†MUS 314. (3) **Music of the Romantic Era**  
A study of styles and trends in nineteenth-century music.  
Prerequisite: Music 110. (3-0; 3-0)
- \*†MUS 315. (3) **Music of the Twentieth Century**  
A study of music from c.1900 to the present day.  
Prerequisite: Music 110.  
No specified text. Regular assignments. ((3-0; 3-0)
- \*†MUS 316. (3) **Text, Music and Drama**  
A study of the relationship of text and music in songs, choral works, and dramatic music of all periods, with special reference to the historical context.  
Prerequisite: Music 110.  
No specified text. An extended essay will be required each term. (3-0; 3-0)
- MUS 365. (3) **Music Theatre**  
An introduction to Music Drama; a study (with practice) of dramatic music from liturgical drama to the present day. (2-2; 2-2)
- MUS 390. (3) **Special Studies**  
This may vary from year to year and be either a course of lectures on some detailed aspect of music history or a study of special topics in consultation with the Department of Music.  
Prerequisite: Music 110. (3-0; 3-0)
- MUS 410. (1) **Collegium Musicum**  
For all fourth year students.  
Investigation of chamber music with special emphasis given to preparing and producing music for voices and/or instruments. (2-0; 2-0)
- MUS 490. (3) **Special Studies**  
This may vary from year to year and be either a course of lectures on some detailed aspect of music history or a study of special topics in consultation with the Department of Music.  
Prerequisite: Music 110.
- MUS 499. (3) **Seminar in Musicology (formerly 426)**  
For Music History majors only. Seminar will include the graduating essay.

#### **INSTRUMENTAL AND CHORAL TECHNIQUES**

- †MUS 330. (2) **Strings**  
Group instruction in playing all orchestral stringed instruments. (2-2; 2-2)
- †MUS 331. (2) **Brasses**  
Group instruction in playing all orchestral brass instruments. (2-2; 2-2)
- †MUS 332. (2) **Woodwinds**  
Group instruction in playing all orchestral woodwind instruments. (2-2; 2-2)
- ‡MUS 335. (3) **Orchestration**  
Study of instrumentation and orchestration.  
Prerequisite: Music 100. (3-0; 3-0)

\*Approved for credit in the Faculty of Arts and Science.

†Approved for credit in the Faculty of Education.

†MUS 356. (3) **Introduction to Conducting**

Fundamental conducting techniques as applied to instrumental and vocal music.  
Prerequisite: Permission of Instructor.

†MUS 360. (3) **Choral Techniques**

The elements of vocal production, repertoire, analysis and rehearsal technique.  
Prerequisite: Music 110. (2-1; 2-1)

MUS 456. (3) **Conducting**

Prerequisite: Music 356. (2-1; 2-1)

**APPLIED MUSIC**

Instruction in voice or in an instrument will be provided by the faculty of the Victoria Conservatory of Music, with whom the University is in affiliation.

†MUS 140. (1) **Individual Tuition**

Lessons in instrument or voice.

Prerequisite: Evidence of marked musical ability demonstrated by audition.  
(0-1; 0-1)

MUS 145. (3) **Seminar in Performance**

Individual tuition and weekly class including discussion of repertoire, pedagogy, and techniques of ensemble performance.

Prerequisite: A.R.C.T. Diploma (Performers') or equivalent.  
(1½-1½; 1½-1½)

For Performance Majors only, and limited to piano and strings 1970-71.

†MUS 240. (1) **Individual Tuition**

Lessons in instruments or voice.

Prerequisite: Music 140. (0-1; 0-1)

MUS 245. (3) **Seminar in Performance**

Individual tuition and weekly class including discussion of repertoire, pedagogy, and techniques of ensemble performance.

Prerequisite: Music 145.

For Performance Majors only. (1½-1½; 1½-1½)

†MUS 340. (1) **Individual Tuition**

Lessons in instruments or voice.

Prerequisite: Music 240. (0-1; 0-1)

MUS 345. (3) **Seminar in Performance**

Individual tuition and weekly class including discussion of repertoire, pedagogy, and techniques of ensemble performance.

Prerequisite: Music 245.

For Performance Majors only.

†MUS 440. (1) **Individual Tuition**

Lessons in instruments or voice.

Prerequisite: Music 340. (0-1; 0-1)

MUS 445. (3) **Seminar in Performance**

Individual tuition and weekly class including discussion of repertoire, pedagogy, and techniques of ensemble performance.

Prerequisite: Music 345.

For Performance Majors only.

†Approved for credit in the Faculty of Education.

**MUS 446. (3) Special Techniques**

Discussion of specific elements of performance such as style, ornamentation, etc.

Prerequisite: Music 345.

For Performance Majors only.

**MUS 447. (3) Graduating Recital**

Prerequisite: Music 345.

For Performance Majors only.

**PERFORMANCE GROUPS**

†MUS 150. (0) University Chorus	(0-2; 0-2)
†MUS 151. (0) University Orchestra	(0-2; 0-2)
†MUS 152. (0) University Concert Band	(0-2; 0-2)
†MUS 153. (0) Wind Ensembles	(0-2; 0-2)
†MUS 154. (0) String and Piano Ensembles	(0-2; 0-2)
†MUS 155. (0) University Chamber Singers	(0-2; 0-2)

**GRADUATE COURSES**

Students should consult with the Department of Music concerning the courses offered in any particular year.

MUS 500. (3) Musical Paleography

MUS 501. (3) History of Notation

MUS 502. (3) History and Theory of Criticism

MUS 560. (3) Seminar in Musicology

MUS 561. (3) Seminar in Composition

MUS 562. (3) Seminar in Advanced General Musicianship

MUS 580. (3) Directed Studies

§MUS 597. M.Mus. Graduating Composition(s)

§MUS 598. M.Mus. Practicum

§MUS 599. M.A. Thesis

MUS 600 (3) Advanced Musical Paleography

§MUS 699. Ph.D. Dissertation

†Approved for credit in the Faculty of Education.

§Credit to be determined.

# DEPARTMENT OF STUDIO VISUAL ARTS

- Donald Harvey, A.T.D. (*Britain*), Associate Professor (Drawing and Painting).  
Dana W. Atchley, A.B. (*Dartmouth*), B.F.A., M.F.A. (*Yale*), Assistant Professor.  
(Foundation Studies and Photography).  
Peter William Daghish, Dip. E.B.A. (*Montreal*), Assistant Professor (Drawing and Printmaking).  
John Philip Dobereiner, Dip. V.S.A., B.Ed. (*Brit. Col.*), M.F.A. (*Wash.*), Assistant Professor (Drawing and Painting).  
Eric G. Hilton, D.A. (*Edinburgh Coll. of Art*), Assistant Professor (Sculpture).

## PROGRAMMES LEADING TO THE DEGREE OF B.F.A.

The programme described below, initiated in September 1968 after intensive study of current and projected programmes in British, American, and European art schools, has two main objectives. First, to ensure that students are exposed to the broad liberal-arts education available in the University; second, to equip students with at least the necessary fundamentals for a professional career in some particular area of the visual arts — knowledge of techniques and principles, exercise of imaginative and creative faculties, and development of visual and tactile awareness. Accordingly, all students begin with a basic two years developing visual vocabulary. In the third year, they take twelve units of formal course work in a specialized area. In the fourth year, they take twelve units of unstructured independent work, as a “free form-giving” seminar designed to provide opportunity for creative expression in the area of their choice, to culminate in presentation of a visual thesis.

The basic principle behind this sequence is that what has traditionally been known as the “aesthetic experience” of spectators or the “creative act” of artists is not the *cause* but the *result* of artistic activity; that wherever it may end, artistic activity begins in a context of social reference, in relationship to needs and demands of society; and that consequently students, having acquired a sound knowledge of the practice of art, may then develop in their own chosen area of future professional activity.

From 1968-69, the Diploma in Fine Arts programme described in earlier calendars may no longer be elected; provision is made instead for mature students lacking some academic entrance requirements but showing extraordinary promise in the practice of visual arts to be admitted to the B.F.A. programme upon approval of application by the Dean of the Faculty of Fine Arts and the Registrar. Students enrolled as majors in the department prior to September 1968 may proceed to the B.F.A. degree by completing the requirements specified in earlier calendars — viz., 6 units English, 6 units history in art, 6 units non-studio academic elective, and 42 units studio course work.

## NOTE FOR STUDENTS SEEKING ADMISSION TO THE DEPARTMENT FOR THE FIRST TIME

Because of limited facilities, the Department of Studio Visual Arts of the Faculty of Fine Arts finds that this year it is again necessary to limit enrolment of students entering the Bachelor of Fine Arts programme.

So that the selection of those admitted can be as fair as possible, all B.F.A. candidates are requested to submit a folio of their recent work to be evaluated by a committee of the faculty. Folios may contain drawings, prints, paintings, or any flat material. Applicants whose speciality is in a three dimensional area should submit photographs or slides. Letters of recommendation, evidence of prizes or awards, or other written material should be sent separately by regular letter mail. Folios should be sent or delivered to:

Chairman,  
Room 199, MacLaurin Building,  
University of Victoria.

(Appointments for a personal interview may be made at this office also.)

The deadline for the receipt of folios is the *4th of July, 1970*. Candidates will be notified of the results of the evaluation soon thereafter.

Apart from this extra requirement for B.F.A. candidates, students should apply for admission to the university in the usual way, and at the usual time, through the Admissions Office.

YEARS 1 AND 2

<i>Year 1</i>	<i>Units</i>	<i>Year 2</i>	<i>Units</i>
Art 105	(6)	Art 211	(1½)
Art 109	(3)	Art 207	(9)
*two of: History in Art 100		*two of: History in Art 360	
History in Art 120		History of Theatre	
Psychology 100		310, 311, 312	
Philosophy 100		Theatre 340, 341, 342	
a modern language		a modern language or	
Theatre 105		equivalent, with	
Music 110		advisor's approval	(6)
or equivalent, with			
advisor's approval	(6)		
	<hr/>		<hr/>
	15		16½

\*At least one of these two electives must be a non-studio or non-laboratory course.

YEAR 3

In this year students will be expected to choose, in consultation with their advisor, twelve units of work from the offerings listed below plus one course in a non-visual-arts area. Courses which the Department proposes to offer in 1970-71 are as follows:

	<i>Units</i>		<i>Units</i>
Graphics	Art 336 (3)	Painting	Art 315 (3)
	Art 337 (3)		Art 316 (6)
	Art 338 (3)	Sculpture	Art 375 (3)
	Art 339 (3)		Art 376 (6)
Drawing	Art 345 (3)	Film and	
	Art 346 (3)	Photography	Art 365 (3)
Theatre			
Design	Art 340 (3)		

YEAR 4

Senior students will take one course (3 units) of work in a non-studio area, and will spend the rest of their time on Art 499, Free Form-Giving seminar (12) in the area of their choice.

The Department wishes to emphasize that it is planned to offer further specialized design courses as resources and circumstances permit. Entering students are advised to consult the Department before registering.

STUDIO VISUAL ART COURSES

(Open without credit to all students in the University with appropriate prerequisites, if space permits. Permission of Registrar and Department required.)

†ART 105. (6) **Foundation Studies I**

Introduction to elements of design; experience with various mediums and techniques. (1-5; 1-5)

†ART 109. (3) **DRAWING I**

An introduction to drawing as a mode of expression. A course designed to introduce the student to the free manipulation of various drawing media, basic graphic values such as the calligraphic nature of drawing as a medium of personal communication and drawing as an exciting vehicle of invention and exploration. (0-3; 0-3)

†ART 207. (9) **Foundation Studies II**

Exploration of two dimensional form. Exploration of three dimensional form. Exploration of light and motion. This course includes some experience in all of the areas of specialization offered in third year i.e. painting, graphics, sculpture, film and photography, theatre design and drawing. (1-8; 1-8)

†Approved for credit in the Faculty of Education.

- †ART 211. (1½) **Drawing in Relation to Design** (0-2; 0-2)
- †ART 235. (3) **General Design**  
Drawing and design with emphasis on innovation with limited materials and facilities. (0-3; 0-3)
- ART 336. (3) **Word and Image**  
A typographical exploration of the area between poetry and painting; concrete and visual poetry, word as image/image as word. No prerequisite. (0-3; 0-3)
- †ART 337. (3) **Intaglio**  
The history techniques and methods of etching, drypoint and engraving. (0-5; 0-5)
- †ART 338. (3) **Planographic**  
The history, techniques and methods of stone and metal plate lithography and experience in silk screen printing. (0-5; 0-5)
- †ART 339. (3) **Relief**  
The history, techniques and methods of linocut, woodcut, wood engraving, relief etching and introduction to typesetting and letterpress printing. (0-5; 0-5)
- †ART 315. (3) **Painting**  
An introduction to oil and new plastic media; methods of priming, framing, etc.; painting problems in Still Life, Figure and Landscape. Composition and pictorial structure will be emphasized. This course may be taken concurrently with Art 316. (0-4; 0-4)
- †ART 316. (6) **Painting**  
This course will place primary emphasis on personal expression within the disciplines of painting. Abstraction and non-figurative painting will be stressed although individual interpretation will always be the major consideration. This course may be taken concurrently with Art 315. (0-6; 0-6)
- †ART 345. (3) **Drawing**  
A course in drawing in which the student will have opportunities to expand his graphic vocabulary on the basis of his previous courses and to make special study of the application of drawing to his major field of study. (0-3; 0-3)
- ART 346. (3) **Drawing**  
A course in technical drawing. (0-3; 0-3)
- †ART 365. (3) **Film and Photography**  
An open workshop in film and photography, limited to students who have demonstrated a previous knowledge of film and/or photographic techniques. Permission of the instructor required (portfolio). Enrolment limited to six in 1970-71 due to limited technical and equipment resources. (0-3; 0-3)
- †ART 375. (3) **Sculpture**  
Dual function of the course will be structured within a framework of perception and technology. A study of the nature of intermedia in the widest sense will be integrated within projects which allow for the free development of individual needs. This course may be taken concurrently with Art 376. (0-3; 0-3)
- †ART 376. (6) **Sculpture**  
This course is based on personal research encompassing where necessary a wide range of technical disciplines. Emphasis will be placed on personal perception where students can investigate their own philosophies related to their environment. No limitation will be placed on the course regarding fields of study within the scope of the school. All faculty within the school can be called upon for applicable assistance. This course may be taken concurrently with Art 375. (0-6; 0-6)
- †ART 340. (3) **Theatre Design**  
This course is identical to Theatre 340. (0-3; 0-3)  
It is recommended that students who take this course also take Theatre 100 as their non-studio elective.
- †Approved for credit in the Faculty of Education.

ART 491. (3) **Directed Studies in Painting**

ART 493. (3) **Directed Studies in Ceramics (not offered in 1970-71)**

ART 495. (3) **Directed Studies in Design**

May be taken more than once in different areas, as industrial design, theatre design, interior design.

ART 497. (3) **Directed Studies in Graphics**

ART 499. (12) **Free Form-Giving Seminar (not offered in 1970-71)**

# DEPARTMENT OF THEATRE

Ralph G. Allen, B.A. (*Amherst*), D.F.A. (*Yale*), Associate Professor and Chairman of the Department.

Robert M. Cothran, Associate Professor.

Richard Courtney, B.A. (*Leeds*), Dip. Ed. (*Leeds*), F.R.S.A., Associate Professor.

Carl R. D. Hare, M.A. (*Alta.*), Dip. R.A.D.A., Associate Professor.

Allan Granstrom, B.A. (*Utah*), M.A. (*Northwestern*), Assistant Professor.

Wandalie Henshaw, B.A. (*Mich.*), M.F.A. (*Yale*), Ph.D. (*Pittsburgh*), Assistant Professor.

John F. Krich, B.A. (*Baldwin-Wallace*), M.F.A. (*Yale*), Assistant Professor.

Robert C. Field, B.A. (*Yankton College*), M.A. (*Miami*), Lecturer.

E. Patricia Wainman-Wood, B.A. (*Queen's*), Lecturer.

## BACHELOR OF FINE ARTS WITH A MAJOR IN THEATRE

The Bachelor of Fine Arts with a major in Theatre is an intensive programme intended for students who wish to continue their studies in graduate or professional schools or who wish to prepare for a career in community, educational or professional theatre. The programme is designed to provide not only a broad general education but also a theoretical, historical and practical knowledge of one or more areas of performance: acting, directing, design, or developmental drama.

Students who wish to enter the B.F.A. Theatre programme, or who wish to transfer to the programme from other departments, faculties, or universities, must consult the Theatre Department, and all students must consult the Chairman of the Theatre Department during the first two days of registration.

Students will be required to take part in rehearsals and performances associated with departmental projects. They must consult the Department before accepting major commitments not related directly to their course of study.

Each season, the Theatre Department presents major productions in the Phoenix Theatre. As well, a season of experimental productions is presented.

## PROGRAMME OF COURSES

### General Programme

All B.F.A. students must complete sixty units of course work of which no fewer than thirty and no more than thirty-six normally will be in theatre. Each student is required to take English 120, Theatre 100 and either Theatre 105 or Theatre 106 in his first year. In his second year each student will be assigned an advisor who will develop a programme of studies related to his needs and abilities. During his final three years a student normally will be required to take Theatre 270, 310 and 311.

### Special Programme

A student showing exceptional talent in acting, designing, directing or developmental drama may be permitted to specialize in one of these areas. Such a student must offer at least 36 credits of theatre course work for graduation of which at least nine units must be in his specialty and three units in a related area as determined by his advisor.

*including  
Theatre 310  
and 311*

## COURSES OFFERED

### INTRODUCTORY COURSES

†\*THEA 100. (3) *The Language of the Theatre*

An introduction to theatrical form and to the principles of stage performance: analysis of selected plays; acting theory and other elements of play production.

Members of the Department.

(3-0; 3-0)

†Approved for credit in the Faculty of Education.

\*Approved for credit in the Faculty of Arts and Science.

†THEA 105. (3) **An Introduction to Stage Design and Technical Practice**

Elementary principles of design and lighting; the techniques of scenery and costume construction.

Mr. Cothran, Mr. Field.

(1-4; 1-4)

**HISTORY OF THEATRE**

†\*THEA 310. (3) **The History of the Theatre to 1642**

An examination of the western theatre in relation to society from its beginnings in primitive ritual to the close of the English playhouses in 1642.

Dr. Allen.

(3-0; 3-0)

†\*THEA 311. (3) **The History of the Theatre from 1642 to the Rise of Naturalism**

An examination of the late seventeenth-, eighteenth-, and nineteenth-century theatre with particular emphasis on England, France, Italy and Germany.

(Not offered 1970-71).

(3-0; 3-0)

†\*THEA 312. (3) **Modern World Drama**

A history of the theatre from Ibsen to the present.

(Not offered 1970-71).

(3-0; 3-0)

**ACTING**

†THEA 120. (3) **Acting I**

First steps in movement, voice, improvisation and scene study. Elementary phonetics

Mr. Krich, Mrs. Wainman-Wood.

(0-6; 0-6)

†THEA 220. (3) **Acting II**

Advanced work in movement, voice, and characterization. Prerequisite: permission of the instructor.

Mr. Hare.

(0-6; 0-6)

†THEA 320. (3) **Acting III**

Acting under performance conditions with particular reference to period styles. Prerequisite: permission of the instructor.

Mr. Hare, Mr. Krich.

(0-6; 0-6)

†THEA 420. (3) **Special Problems in Acting**

Advanced work under performance conditions. Prerequisite: permission of the instructor.

(0-6; 0-6)

**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. Prerequisite: permission of the instructor.

Dr. Henshaw.

(1-4; 1-4)

†THEA 430. (3) **Directing II**

Advanced work in stage direction with particular emphasis on special problems of style. Prerequisite: Theatre 330 or permission of the instructor.

Dr. Henshaw.

(1-4; 1-4)

†THEA 435. (3) **Advanced Directing**

Work under performance conditions. Prerequisite: permission of the instructor. (Not offered 1970-71).

(1-4; 1-4)

†Approved for credit in the Faculty of Education.

\*Approved for credit in the Faculty of Arts and Science.

## DESIGN AND TECHNICAL PRACTICE

### THEA 340. (3) **Scenery for the Theatre**

Problems in the design and construction of stage scenery. Practical work will be required. Prerequisite: Theatre 105 or permission of the instructor. (2-2; 2-2)

### THEA 341. (3) **Costume for the Theatre**

Problems in costume design and construction; history of costume. Prerequisite: Theatre 105 or permission of the instructor. (2-2; 3-0)

### THEA 342. (3) **Lighting for the Theatre**

Lighting design; its theory and practice. Prerequisite: Theatre 105 or permission of the instructor. (2-2; 2-2)

## CRITICISM

### †THEA 370. (3) **Theatre Aesthetics**

Study in dramatic form; styles of theatrical presentation and acting; the relationship of the theatre to other dramatic media and to contemporary society, literature, and thought. Selected plays will be examined in depth. Prerequisite: Theatre 100 and permission of the instructor.

(Not offered 1970-71). (3-0; 3-0)

## DEVELOPMENTAL DRAMA

NOTE: Theatre 380 and 480 as described below will be offered for the last time in 1970-71. These courses will be open only to students who have taken Theatre 180 and 280 now discontinued.

### †THEA 181. (3) **Creative Drama**

Practical exploration of dramatic imagination, awareness and interaction by the student, both individually and in groups. A survey of such work with young children. Both studio work and work with children will be required.

Texts: Richard Courtney, *Teaching Drama*; Ronald James, *Infant Drama*; E. M. Matterson, *Play and Playthings for the Pre-School Child*; Peter Slade, *Child Drama*; Schutz, *Joy*; E. J. Burton, *Drama in the Primary School*; Joan Russell, *Creative Dance in the Primary School*.

Mr. Courtney and Members of the Department. (0-6; 0-6)

### †THEA 380. (1) **Third Year Seminar in Creative Drama**

Prerequisite: Theatre 280 or permission of the instructor.

Texts: C. A. Alington, *Drama and Education*; Education Survey 2, *Drama*; John Wiles and Alan Garrard, *Leap to Life*; Arthur Wise, *Communication in Speech*.

(Offered 1970-71 for the last time). (0-2; 0-2)

### †THEA 382. (3) **Youth Theatre**

Creative drama developments, with specialized exploration of dramatic imagination through movement and non-verbal methods both individually and in groups. A survey of dramatic activity with older children with detailed examination of the evolving theatre forms. Both studio work and work with children will be required. Prerequisites: Theatre 181 (or 180-480) and permission of the instructor.

Texts: C. A. Alington, *Drama and Education*; Education Survey 2, *Drama* (HMSO); E. J. Burton, *Drama in Schools and Teaching English Through Self-Expression*; Norma Canner, *And a Time to Dance*; Richard Courtney, *The School Play*; John Wiles and Alan Garrard, *Leap to Life*; Arthur Wise, *Communication in Speech*; Brian Way, *Development Through Drama*.

Mr. Courtney and Members of the Department. (1-4; 1-4)

### †THEA 383. (3) **Theatre-for-Young-Audiences**

A study of the problems of Theatre-for-Young-Audiences, with practical work in a variety of forms and media. Each student will be responsible for two specific projects. There will also be a study of architecture and equipment of theatre forms. Studio work will be required. Prerequisites: Theatre 181 (or 180-480) and permission of the instructor.

†Approved for credit in the Faculty of Education.

Texts: Richard Courtney, *The School Play*; Richard Courtney, *The Drama Studio*; Siks and Dunnington, *Children's Theatre and Creative Dramatics*; Brian Way, *Development Through Drama*.

Mr. Courtney.

(1-4; 1-4)

†THEA 480. (1) **Fourth Year Seminar in Creative Drama**

Prerequisite: Theatre 380 or permission of the instructor.

Texts: Christable Curniston, *Creative Oral Assessment*; E. J. Burton, *Teaching English Through Self-Expression*; Norma Canner, *And a Time to Dance*; Richard Courtney, *The School Play*; Brian Way, *Development Through Drama*.

(Offered in 1970-71 for the last time).

(0-2; 0-2)

†THEA 481. (3) **Theory of Dramatic Education**

The philosophic basis of dramatic work in education; psychoanalytic and psychotherapeutic studies of dramatic play and theatre; social anthropology (including the origins of drama) and its relevance to children's play; social psychology and group studies; theories of the cognition and language of children and their relationship to both dramatic impersonation and imagination.

Prior reading: texts for Theatre 181, 382 and 383 are assumed to have been read before entry to the course. Prerequisite: permission of the instructor.

Texts: Richard Courtney, *Play, Drama and Thought*; A Goome, *The Traditional Games of England, Scotland & Ireland*, 2 vols.; Susanna Millar, *The Psychology of Play*; I. & P. Opie, *The Language & Lore of Schoolchildren*; S. J. Parnes & Harding, *A Source Book for Creative Thinking*.

Mr. Courtney.

(3-0; 3-0)

#### **DIRECTED STUDIES**

THEA 299. (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. Open only to second-year students in the B.F.A. programme. (2-2; 2-2)

†\*\*THEA 390. (3) **Directed Studies in Theatre History**

†\*\*THEA 391. (3) **Directed Studies in Theatre Aesthetics**

†\*\*THEA 392. (3) **Directed Studies in Theories of Acting**

†\*\*THEA 393. (3) **Directed Studies in Theories of Direction**

†\*\*THEA 394. (3) **Directed Studies In Developmental Drama**

†THEA 395. (3) **Directed Studies In Design**

THEA 399. (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. Open only to third-year students in the B.F.A. programme. (2-2; 2-2)

THEA 490. (3) **Graduating Project**

Students may take directed studies under this number for credit more than once according to their areas of interest and with the permission of the Department.

#### **GRADUATE STUDIES**

THEA 500. (3) **Methods and Materials of Theatre Research**

THEA 501. (3) **History and Criticism of Tragedy**

THEA 502. (3) **History and Criticism of Comedy**

†Approved for credit in the Faculty of Education.

\*\*Students in Arts and Sciences may elect for credit only one of the five directed studies courses.

- THEA 503. (3) **Seminar in European Theatre History**
- THEA 504. (3) **Seminar in North American Theatre History**
- THEA 505. (3) **Contemporary Theatrical Styles**
- THEA 506. (3) **Seminar in Child Drama**
- THEA 507. (3) **Seminar in Children's Theatre**
- THEA 508. (3) **Advanced Problems in Scene Design**
- THEA 509. (3) **Advanced Problems in Lighting Design**
- THEA 510. (3) **Advanced Problems in Costume Design**
- THEA 511. (3) **Advanced Problems in Production**
- THEA 512. (3) **Advanced Problems in Directing**
- THEA 513. (3) **Advanced Problems in Interpretation**
- THEA 514. (3) **M.A. Thesis**
- THEA 515. (3) **M.F.A. Final Project**
- THEA 590. (3) **Directed Studies**

Students may take directed studies under this number for credit more than once according to their areas of interest and with the permission of the Division.



*Faculty of Graduate Studies*

# FACULTY OF GRADUATE STUDIES

The Faculty of Graduate Studies of the University of Victoria administers programmes leading to the degree of:

Master of Arts  
Master of Fine Arts  
Master of Music  
Master of Science  
Doctor of Philosophy

Degrees may be taken in one Department or Faculty, or in a combination of them. Members of the Executive Committee of the Faculty of Graduate Studies are:

M. H. Scargill, Dean of the Faculty of Graduate Studies, Chairman, (to June 30, 1970).

A. R. Fontaine, Associate Dean of the Faculty of Graduate Studies.

*Representing Education*

N. Hawkes, Faculty of Education.

*Representing the Humanities*

S. W. Jackman, Department of History

*Representing the Sciences*

A. Fischer, Department of Chemistry

*Representing the Social Sciences*

P. Juncker, Department of Geography

*Representing Fine Arts*

A. Gowans, Department of History in Art

*Secretary*

*Registrar (ex-officio)*

Nominee: R. G. Napier.

## REGULATIONS

The regulations stated 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.

The Faculty of Graduate Studies of the University of Victoria administers programmes leading to the degrees of Master of Arts, Master of Fine Arts, Master of Music, Master of Science, Master of Education,\* and Doctor of Philosophy. Degrees may be taken in one Department or Faculty, or in a combination of them.

### General Requirements

The general requirements apply to all students registered in the Faculty of Graduate Studies. Special regulations are described under the headings "Special Regulations for the Master's Degree" and "Special Regulations for the Degree of Doctor of Philosophy."

### Qualifications for Admission

The requirement for admission to the Faculty of Graduate Studies is an academic standing acceptable to the Faculty of Graduate Studies and the Department or Faculty concerned. In general, this will be a baccalaureate degree from a recognized university, or its equivalent, with a B average (70%) in the work of the last two years.

NOTE 1: Students whose native language is not English will be required to provide evidence that their knowledge of English is sufficient to allow them to proceed with their studies.

\*The degree of Master of Education is not offered at the present time.

NOTE 2: Overseas students should not make provision to travel to Canada until they have actually been admitted and have evidence of financial resources to allow them to pursue their studies here.

### Categories of Students

A full-time graduate student is one who devotes the greater part of his time to his studies and, thus, should not be gainfully employed for more than 300 hours, September through April. Students who are gainfully employed for a greater number of hours than this must register as part-time students; other students may elect so to register.

Students are admitted to the Faculty of Graduate Studies in one of the following categories:

1. *Candidate for a Master's degree.*

2. *Provisional candidate for the degree of Doctor of Philosophy.*

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 6 of the Special Regulations for the degree of Doctor of Philosophy.)

3. *Special Graduate Student.*

Special graduate students are students who are admitted to the Faculty of Graduate Studies to take graduate courses for credit at another university. Such students must prove that they have the qualifications for admission to the university at which they intend to apply their credits.

4. *Qualifying Graduate Students*

A qualifying graduate student is one who is not yet a candidate for a Master's degree nor a provisional candidate for a doctoral degree. Such a student may be admitted to the Faculty of Graduate Studies on the recommendation of a Department, or Faculty to a programme which will normally consist of at least nine units. At the end of that programme, the Department or Faculty concerned shall make a recommendation to the Faculty of Graduate Studies on the student's status. No student shall remain as a qualifying student for more than twelve months.

NOTE 1: Except as specified in item 2 and 4 above, it is the student's responsibility to request the Faculty of Graduate Studies to change his category.

NOTE 2: No part-time graduate student may offer for credit more than six units of course work at the graduate level (courses numbered 500 to 699) in any one winter session; nor may he offer more than nine units of course work or thesis or both for credit in any twelve-month period.

NOTE 3: No graduate student may take more than three units of course work at the graduate level in any one summer; moreover, he may not take an undergraduate level course in the same summer in which he does take a graduate course.

NOTE 4: No graduate student may offer for credit more than 18 units of work (courses, thesis or dissertation, or both) in any one twelve-month period.

NOTE 5: No graduate student may offer for credit more than six units of work at the undergraduate level in the final 15 units credited to his degree, and these courses shall not be below the 300 level.

NOTE 6: Graduate courses (500 to 599) are not open to students outside the Faculty of Graduate Studies, except that an honours student in his fourth year may be allowed to take one course on the recommendation of a Department or Faculty.

### Application for Admission

Applications for admission must be submitted as early as possible on forms obtained from the Faculty of Graduate Studies. No assurance can be given that applications received after June 1 can be processed in time to permit registration in the winter session. A graduate of another university must arrange with that institution to forward two transcripts of his academic record to the Faculty of Graduate Studies at the time of application. Also, at the same time, all applicants must arrange to have two letters of recommendation sent to the Faculty of Graduate Studies on forms supplied by the Faculty. All applications must be accompanied by an application fee of \$5.00.

## Registration

All students admitted to the Faculty of Graduate Studies must normally register in person on the date specified for such registration and announced by the Office of the Registrar. All students admitted to the Faculty of Graduate Studies must thereafter maintain continuous registration during the period of their programmes by registering in person or by mail once a year on the annual registration date and paying the necessary fees.

Students registering for the first time are required to submit a medical history. The necessary form is mailed to each applicant with the Notice of Admission, and it must be completed and mailed to the Student Health Service before registration can be completed. A medical examination is not compulsory except for resident students and those 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 Director of Student Health Service, may require a student to take a medical examination at any time during his attendance at the University. This measure exists to safeguard the medical welfare of the student body as a whole.

## Permission to Withdraw

A student who wishes to withdraw from the Faculty of Graduate Studies, either temporarily or permanently, must request permission in writing from the Dean of the Faculty to do so.

## Academic Standards

Students registered in the Faculty of Graduate Studies are expected to achieve at least a "B—" in each course or an overall average of "B" in all courses taken for credit towards a graduate degree.

Students failing to meet at least one of the above standards may be required to withdraw from the Faculty of Graduate Studies with the advice and consent of the Department or Faculty concerned.

Students who fail their final oral examination will not be recommended for a degree. Such students have the right to appeal to the Dean of the Faculty in writing, giving reasons for a re-examination. Such an appeal must be made within three months.

## Dissertation or Thesis

Regulations covering the format of dissertation or thesis may be obtained from the Faculty of Graduate Studies.

## Special Regulations for the Master's Degree

### 1. *Time Limit*

Normally, a student proceeding toward a Master's degree will be required to complete all the requirements for the degree within five years (sixty months) from the date of his first registration in the Faculty of Graduate Studies. A degree will in no case be awarded in less than seven months from the time of that registration.

### 2. *Residence Requirements*

There are no fixed residence requirements at the University of Victoria for students proceeding to a Master's degree. However, see item 3 below.

### 3. *Course and Programme Requirements*

The minimum requirement for a Master's degree is the equivalent of one full winter session of study.

NOTE 1: A full winter session of study should be regarded as equivalent to a minimum of 15 units of work.

NOTE 2: A maximum of 18 units of credit for courses, or thesis, or both, may be granted in any twelve-month period during which a student is registered full time at the University of Victoria. A maximum of nine units of credit for course work or thesis, or both, may be granted in any twelve-month period during which a student is not registered full time at the University of Victoria.

NOTE 3: A student with an honours baccalaureate degree may normally be able to obtain a Master's degree with one full winter session of study.

4. *Research and Course Work*

Considerable variation is permitted in the balance between research and course work required for the degree, though most programmes include a thesis based on research. Details of the student's programme are recommended by the Supervisory Committee to the Faculty of Graduate Studies.

5. *Courses Taken at Other Institutions*

On the recommendation of the Department or Faculty concerned, the Faculty of Graduate Studies may accept for credit in a graduate programme courses taken at other institutions. However, the major portion of the work must be completed at the University of Victoria.

6. *Supervisory Committee*

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 or Faculty. The Committee shall recommend to the Faculty of Graduate Studies a programme of studies; it shall examine the thesis if one is required; it shall conduct a final oral examination of the candidate on his thesis or discipline, or both, the oral being chaired by the Dean or his nominee; it may conduct other examinations; it shall recommend to the Faculty of Graduate Studies that a degree be awarded to a successful candidate.

A final oral examination is required of all students registering for the first time in 1969 and following years. The result of the examination will be entered on the student's Permanent Record Card as "Complete" if the candidate is successful. If the candidate is not successful, the entry will be "Incomplete," and a degree will not be awarded.

7. *Examiner from Outside the Department or Faculty*

The Faculty of Graduate Studies shall appoint an examiner from outside the Department or Faculty concerned, who may be the outside member of the Supervisory Committee (see item 6 above). Oral examinations for the Master's degree are open to interested members of Faculty.

8. *Date of Submission of Thesis*

A thesis, where one is required, must be submitted to the Department or Faculty concerned no later than May 1 for graduation at the Spring Convocation.

**Special Regulations for the Degree of Doctor of Philosophy**

The doctoral programme 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.

1. *Time Limit*

Normally, a student proceeding to the degree of Doctor of Philosophy will be required to complete all the requirements within seven years (eighty-four months) from the date of his first registration in the doctoral programme. A degree will not be awarded in less than two years (twenty-four months) from the time of that registration.

2. *Residence Requirements*

A student proceeding to the degree of Doctor of Philosophy must spend at least two winter sessions at the University of Victoria, except that a student entering the doctoral programme with a Master's degree may have this residence requirement reduced to one winter session.

3. *Course and Programme Requirements*

The minimum requirement for the degree of Doctor of Philosophy is the equivalent of two full winter sessions of study beyond the Master's level or three full winter sessions of study beyond the Bachelor's level, and satisfactory completion of the prescribed programme.

NOTE 1: A full winter session of study should be regarded as equivalent to a minimum of 15 units of work.

NOTE 2: A maximum of 18 units of credit for course work or dissertation, or both, may be granted in any twelve-month period during which a student is registered full time at the University of Victoria. A maximum of nine units of

credit for course work or dissertation or both, may be granted in any twelve-month period during which a student is not registered full time at the University of Victoria.

4. *Courses Taken at Other Institutions*

On the recommendation of the Department or Faculty concerned, the Faculty of Graduate Studies may accept for credit in a graduate programme courses taken at other institutions. However, the major portion of the work must be completed at the University of Victoria.

5. *Supervisory Committee*

A student's programme shall be under the direction of a Supervisory Committee of at least five members, approved by the Faculty of Graduate Studies. The Chairman of the Committee shall be a Faculty member under whose supervision the student is carrying out his major research. Two members of the Committee shall be chosen by the Faculty of Graduate Studies from outside the Department or Faculty in which the major research is being carried out. The Committee shall recommend the programme to the Faculty of Graduate Studies.

6. *Language Other Than English*

A student will normally be required to demonstrate to the satisfaction of the Department or Faculty concerned a reading knowledge of at least one language other than his own.

7. *Candidacy Examinations*

Within two years of registration as a provisional doctoral student and at least six months before the final examination, a student must pass a candidacy examination in subjects relevant to the general field of his research and such other examinations, written or oral, or both, as may be required by the Supervisory Committee.

8. *Dissertation*

The results of the candidate's research must be presented in a dissertation satisfying the general 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 degree of Doctor of Philosophy may be awarded for the dissertation alone.

9. *Examining Committee*

The dissertation shall be assessed by an Examining Committee which will consist of the Supervisory Committee and at least two other examiners, one of whom shall be an external examiner selected by the Faculty of Graduate Studies in consultation with the Department or Faculty primarily concerned and who is an authority in the special field of research.

The final oral examination, based largely on the dissertation, shall be conducted by the Examining Committee, which will recommend a successful candidate for the degree of Doctor of Philosophy to the Faculty of Graduate Studies. The Dean of the Faculty 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 members of Faculty.

Notice of examinations shall be communicated to all members of Faculty at least fourteen days prior to the date of the examinations.

10. *Date of Submission of Dissertation*

A dissertation must be submitted to the Department or Faculty concerned no later than April 15 for graduation at the Spring Convocation.

NOTE: These regulations may be modified at any time with the approval of the Senate or the Board of Governors on the recommendation of the Faculty of Graduate Studies.

## DEPARTMENT OF ANTHROPOLOGY AND SOCIOLOGY

The Department of Anthropology and Sociology offers courses of study leading to the degree of Master of Arts in the following areas:

*Anthropology* — Ethnology of Northwest North America; Archeology of Northwest North America; Ethnology of the Pacific.

*Sociology* — Minority and Ethnic Group Relations; Community Structure and Process; Sociology of Medicine; Sociology of Occupations; Sociology of Religions.

## DEPARTMENT OF BACTERIOLOGY AND BIOCHEMISTRY

The Department of Bacteriology and Biochemistry offers courses of studies leading towards the degree of Master of Science and Doctor of Philosophy in the general area of Nutritional Biochemistry:

The general regulations governing the granting of advanced degrees as stated in Calendar pages 276-278 are applicable.

1. Examinations, oral or written, are mandatory for candidates entering the graduate programme in Biochemistry. These examinations are essential as an aid in the planning of the candidate's subsequent academic programme.
2. All graduate students are required to participate in Biochemistry 580 (Seminar) throughout the period of registration.
3. Every candidate for the M.Sc. will be required to demonstrate to the Department his capabilities in a language other than his native tongue. Ph.D. candidates must demonstrate this capability in two languages other than their own.
4. Thesis: The thesis topic is to be selected in consultation with the Department. The outcome of the thesis project will be deemed adequate if (1) it can be shown to be a new contribution to knowledge and (2) if it is acceptable for publication in a referred Scientific Journal.

## DEPARTMENT OF BIOLOGY

The Department of Biology offers courses of studies leading towards the degree of Master of Science. Facilities are available for programmes in the following botanical and zoological fields:

- Marine Biological Sciences
- Ecology
- Physiology
- Morphology
- Cellular and Developmental Biology
- Systematic Biology

Candidates may also be accepted for programmes leading towards the degree of Doctor of Philosophy in the same fields.

## DEPARTMENT OF CHEMISTRY

In addition to the general regulations governing the granting of advanced degrees, as stated on pages 276-278, the following special regulations are applicable:

1. *Orientation Examinations*

These examinations are held each year at the beginning of the academic year. All students proposing a graduate programme in the Department of Chemistry will be required to take these examinations on the results of which will be based the Department's recommendation as to which courses are required. 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. Normally one year will be allowed for the removal of such deficiencies. Failure to achieve a minimum of B- may lead to a recommendation that the student be asked to withdraw.

2. *Lecture Courses*

All graduate students will be required to take Chemistry 509 (Seminar) throughout their period of registration. Other courses will be prescribed by the Department according to the needs of the candidate, either from courses offered by the Department of Chemistry, or from courses offered by other departments.

3. *Language Requirements*

Every candidate for the Ph.D. will be required to demonstrate to the Department of Chemistry his ability to translate into English scientific papers in German or Russian or another language deemed appropriate by the Department. For the M.Sc. degree, there is no formal foreign language requirement.

4. *Research*

Successful completion of a research study is an essential part of the programme required for an advanced degree in Chemistry. The research project may form the major requirement. The candidate is advised to choose carefully his area of greatest interest before expressing a desire to work with a particular faculty member.

# DEPARTMENT OF ENGLISH

The aim of the Department is to prepare students thoroughly for scholarship, criticism, and teaching. It is our policy to avoid unnecessary duplication by a proliferation of courses or seminars at the graduate level. To that end, we shall accept good grades in senior courses from approved institutions as evidence of satisfactory achievement in periods, themes, figures, or genres of literary study.

Because of the varied backgrounds of students entering upon graduate work with the B.A. or M.A. degree, it is difficult to stipulate requirements which must be met on entry to the programme. We believe, therefore, that it is more profitable to specify what a candidate for an advanced degree shall have done before he is permitted to work entirely on his thesis or dissertation. He should possess the following:

1. A familiarity with the major figures, themes, movements, and genres of English literature from the seventh century to the present day.
2. A familiarity with the major features of the English language, and some knowledge of the outlines of the development of standard literary English.
3. A familiarity with research methods and problems.
4. A familiarity with the spectrum of literary criticism and with the major movements which have affected the criticism of English and American literature.
5. A detailed knowledge of the theme, movement, genre, or figure, with which a student's research is to be concerned.
6. An extensive knowledge of a field related to, or embracing, the subject of his specialization.
7. Normally a good reading knowledge of one language other than English for the M.A., and of two for the Ph.D.

Thus, before he is permitted to work entirely on his thesis or dissertation, a graduate student will have completed the following programme:

- (a) Courses, generally at the 400 level, to fulfil the requirements of 1 and 2 above.
- (b) A seminar, English 500 (except where the equivalent has been done elsewhere, or where a student has registered for the M.A. in Creative Writing), to provide for the requirements of 3 and 4 above.
- (c) One or more seminars in appropriate fields, to meet the requirements of 5 and 6 above.
- (d) Any studies entailed by 7 above.

Those offered places will receive provisional programmes of study, which will be subject to confirmation on their arrival and which may be modified later.

## MASTER OF ARTS

The M.A. degree is offered in English, American, and Commonwealth Literature, and in Creative Writing. The basic programme consists of courses, seminars, and a thesis. A total of at least 15 units of work is required. However, since the thesis may be valued at from 3 to 15 units, and since the M.A. may be obtained in special circumstances by course work or by thesis only, allowance is made for considerable diversity in the nature of the work undertaken for the degree. In appropriate cases, a general examination (which may be written or oral) may be required. Proficiency in reading a language other than English must be demonstrated.

Applicants for the M.A. in Creative Writing will submit examples of original work in their chosen genre. General requirements for the degree are the same as for the M.A. in English, with the following exceptions:

- (a) English 595, which includes some research skills and editorial work appropriate to a writer, replaces English 500.
- (b) There is no foreign language requirement.
- (c) Emphasis is placed upon contemporary literature.
- (d) There is no general examination.
- (e) The thesis will consist of a creative work of some length (e.g. a full length play, a novel, a group of short stories, or a volume of poems).

## DOCTOR OF PHILOSOPHY

Full-time candidates for the Ph.D. entering with an M.A. degree may normally expect to complete the requirements for the degree (including the dissertation) in two years.

Full-time candidates entering with a B.A. degree must in the first place complete the course and seminar requirements for the M.A. degree. Upon the recommendation of the Graduate Committee, the M.A. thesis may be waived for outstanding candidates, who may be permitted to proceed to their Ph.D. seminars and dissertations.

Any doctoral candidate may request that previous graduate work be taken into consideration in the assessment of his course or seminar requirements, although the major part must be done at Victoria.

A full-time provisional doctoral student must have passed a candidacy examination by the end of his second year if he has entered with a B.A. If he has entered with an M.A., he may take this examination at the end of his first year.

The candidacy examination will normally consist of the following:

- (a) A written examination on bibliography and methods of research and criticism, if such an examination has not already been sat;
- (b) Two written examinations of three hours each on the periods, areas of study, themes, figures, or genres concerning which he will write his dissertation;
- (c) A written examination of three hours on his minor field, which will often be a contiguous area of study.

Prior to the candidacy examination, a student must give evidence of proficiency in reading two languages other than English, both of which must normally relate to the field of study for his dissertation. A doctoral dissertation must be the result of original research of sufficient merit to meet the standards of scholarly publication. In exceptional circumstances, where the research justifies it, the degree of Doctor of Philosophy may be awarded for the dissertation alone.

## DEPARTMENT OF GEOGRAPHY

The Department of Geography offers courses of study and research leading to an M.A. degree. Individual programmes may be arranged in economic, urban, resources, physical and regional geography with emphasis on Canada, especially Western Canada and the Pacific Basin.

Candidates may also be accepted for programmes of study leading to the degree of Ph.D.

## DEPARTMENT OF HISTORY

The Department offers one-year and two-year programmes leading to the M.A. degree. Facilities are available for graduate work in American, British, Canadian, and European Intellectual History. The University's McPherson Library has holdings of some 400,000 volumes, and in addition, graduate students may be granted access to the resources of the Provincial Library and Archives, which include notable manuscript collections relating to western Canada and the northwestern United States.

For admission to a one-year programme for an M.A. in history, candidates should normally hold an undergraduate Honours degree in history or its equivalent. To be admitted to a two-year programme, candidates must have completed at least three full-year undergraduate courses (or their equivalent) in history or hold a Bachelor's degree with a First-Class average in the final year's work. All candidates must demonstrate a reading knowledge of a modern language other than English (normally French).

The graduate faculty and major fields of research:

- Miss Charlotte S. M. Girard, Ph.D. (*Bryn Mawr*), Modern France.
- James E. Hendrickson, Ph.D. (*Oregon*), American West.
- Sydney W. Jackman, Ph.D. (*Harvard*), Nineteenth Century British.
- Jan Kupp, Ph.D. (*Man.*), New France.
- William M. Leary, Ph.D. (*Princeton*), Twentieth Century U.S.
- Robert J. McCue, Ph.D. (*Brigham Young*), Sixteenth Century Europe.
- John Money, Ph.D. (*Cantab.*), Eighteenth Century British.
- Sydney G. Pettit, M.A. (*Brit. Col.*), Colonial British Columbia.
- Reginald H. Roy, Ph.D. (*Wash.*), Military and Canadian.
- W. George Shelton, Ph.D. (*Penn.*), European Intellectual.
- David A. T. Stafford, Ph.D. (*L.S.E.*), Modern European.

## DEPARTMENT OF LINGUISTICS

The Department of Linguistics offers programmes of study and research leading to the degree of Master of Arts in the following areas:

1. Canadian English Language.
2. Descriptive Linguistics, especially with application to indigenous languages of the Northwest. The special interests of the Department include theories of grammar, machine translation, lexicography, experimental phonetics and description of languages of the Pacific Rim. (For further details, see course descriptions).

## DEPARTMENT OF MATHEMATICS

The Department of Mathematics offers graduate programmes leading to the degrees of Master of Arts and Master of Science in Pure Mathematics, Applied Mathematics, Computer Science and Statistics.

## DEPARTMENT OF MUSIC

The Department of Music in the Faculty of Fine Arts offers programmes of study and research leading to the degrees of M.A. in musicology, M.Mus. in composition and in performance, and Ph.D. in musicology. See the Calendar under Faculty of Fine Arts for the description of Graduate Courses.

# DEPARTMENT OF PHYSICS

The Department of Physics offers programmes of study and research, leading to the degrees of M.Sc. and Ph.D. The graduate courses offered are listed under Faculty of Arts and Science, Department of Physics.

## **Astronomy and Astrophysics**

Theoretical and observational studies in co-operation with, and using the facilities of, the Dominion Astrophysical Observatory.

## **Physics of Fluids**

*Gas kinetics.*

*Steady and Unsteady Flow* — Experimental and theoretical studies of shock waves and flow in shock tubes.

*Underwater Acoustics* — Model studies of reverberation and other acoustic problems.

## **Geophysics**

*Geomagnetism* — Experimental and theoretical investigation of geomagnetic variations and related topics.

*Plasma Studies* — Plasma diagnostic techniques.

*Upper Atmospheric Physics* — Study of the airglow and related phenomena.

## **Nuclear Studies**

*Cosmic Rays* — Continuous monitoring of low energy nucleonic component and atmospheric correlations using an IBM-360/44 computer.

*Nuclear Magnetic Resonance* — Nuclear spin relaxation in liquids and solids.

*Tri-University Meson Facility (TRIUMF)* — Design and construction of 500 MeV, 100 $\mu$ a sector-focussed cyclotron with three other western universities.

## **Theoretical Physics**

*General Relativity, Nuclear Physics.*

Close contact is maintained with the Defence Research Establishment Pacific, the Dominion Astrophysical Observatory, and the Victoria Magnetic Observatory.

## DEPARTMENT OF PSYCHOLOGY

The Department of Psychology offers programmes of study leading to the degrees of M.A. and M.Sc. Candidates may also be accepted for programmes of study leading to the degree of Ph.D.

An outline of the Departmental regulations regarding the suggested course of graduate studies and examinations is available from the Department secretary.

## DEPARTMENT OF THEATRE

The Department of Theatre in the Faculty of Fine Arts offers programmes of study leading to the degrees of M.F.A., in Theatre, in the following areas: design, stage direction, and production; and M.A., in theatre history.

## FACULTY OF EDUCATION

The Faculty of Education offers programmes of study leading to the degree of M.A. in the following areas:

Educational Psychology  
Educational Administration  
Curriculum and Instruction.

The Faculty also offers programmes leading to the Ph.D. degree in Educational Psychology.

NURSING

The Board of Directors of the University of California, San Diego, has approved the establishment of a Department of Nursing, effective July 1, 1974. The Department will be housed in the Health Sciences Building, Room 1000, and will be headed by Professor [Name].

## *Nursing*

## NURSING

The Board of Governors and the Senate of the University authorized the establishment of a School of Nursing beginning in September 1967. Subsequently however, the establishment of the School was postponed indefinitely.

*Social Welfare*

## SOCIAL WELFARE

In 1967, the Board of Governors and the Senate authorized the establishment of a School of Social Welfare beginning in September 1969. However, in 1968, the establishment of the School was postponed indefinitely.

*Division of*  
*Continuing Education*

# DIVISION OF CONTINUING EDUCATION

*Director:* ROBERT T. D. WALLACE, M.A.

*Associate Director:* Laurence E. Devlin, B.Ed., M.A.

The Division of Continuing Education is responsible for the co-ordination and development of the University's educational efforts which are directed towards adults who are not normally full time students. The philosophy of the Division is that education is a process which continues throughout the life span and that the University's specialized educational resources can be used to improve the quality of individual and social life.

Programmes of continuing education are organized through the Division and usually begin in September and January. These programmes include courses which assist adults to continue their formal education, develop their occupational and professional competence, and deepen their social, artistic or human interests. The Division also co-operates with academic departments to arrange courses and other types of learning experiences which are appropriate to the continuing education needs of certain professional groups. Support services for adult students such as counselling and testing can be arranged through the Division.

Brochures describing courses offered by the Division are available from the University. Since certain important programme changes are planned for the Fall of 1970, adults wishing to continue their education are advised to write to the Director, Division of Continuing Education, University of Victoria, for current information about courses to be offered.

# *Extension*

## EXTENSION

University of Victoria offers certain credit courses in the late afternoon and evening during the winter session for the benefit of persons who are unable to attend during the day. Registration, however, is restricted to one course or not more than three units of credit. The term is the same as that for the regular day students and classes are conducted for the same number of hours per week. Late afternoon credit courses normally begin at 4:30 p.m., two days a week; evening credit courses begin at 7:30 p.m., two days a week. These times are subject to change.

### **Application for Admission**

Persons wishing to enrol as Extension students must apply for admission by the due dates given on page 37 under Application for Admission, and on page 50 under Application for Re-registration.

### **Registration**

Courses offered in 1970-71 and the dates for registration will be published in the early summer in a supplement to this Calendar, after the time table for the winter session has been prepared.

Inquiries regarding credit courses should be directed to the Registrar.

Correspondence courses are not offered.

*Affiliate*  
*Victoria Conservatory of Music*

## AFFILIATE

### Victoria Conservatory of Music

On June 18, 1968, the Victoria Conservatory of Music became affiliated with the University of Victoria. The Conservatory began in 1964 as the Victoria School of Music.

Students in the Bachelor of Music programme and in the music teaching area in the Bachelor of Education programme receive their solo performance tuition from the faculty of the Conservatory.

A list of the faculty is shown under the Department of Music. See page 258.

*Pre-Professional Education*

# PRE-PROFESSIONAL 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 see the Director of the Counselling Centre, University of Victoria.

**Please note that course programmes for First Year students only are outlined.**

Students who plan to undertake professional studies at other Canadian or American universities are urged to correspond with the universities of their choice during their first year at the University of Victoria.

## AGRICULTURE

Suggested courses:  
Biology  
Chemistry  
English  
Mathematics  
An Arts elective

## APPLIED SCIENCE

Suggested courses:  
English  
Mathematics  
Chemistry  
Physics  
An Arts elective

## ARCHITECTURE

Suggested courses:  
English  
Mathematics  
History in Art  
Electives

## 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 course: First Year Arts and Science or its equivalent with standing in 15 units (including English and Mathematics).

## DENTISTRY

Completion of at least three years of study in Arts and Science including English, Mathematics, Chemistry, Biology, Physics.

## HOME ECONOMICS

Suggested courses:  
English  
Chemistry  
Physics  
Mathematics  
Biology or a Social Science

## FORESTRY

Suggested courses:  
Biology or Physics  
Chemistry  
English  
Mathematics  
One additional course

## LAW

Suggested course:  
First Three years Arts and Science

## MEDICINE

Completion of at least three years of study in Arts and Science including English, Mathematics, Chemistry, Biology, Physics

## NURSING (BSN)

Suggested courses:  
English  
Chemistry  
Mathematics  
Biology  
Approved elective

## PHARMACY

Chemistry  
English  
Mathematics  
Physics or Biology  
An Arts elective

## REHABILITATION MEDICINE

English  
Mathematics  
Chemistry  
Biology  
An elective

### PSYCHOLOGY

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

### SOCIAL WORK

Students interested in professional social work are advised to complete a degree in the Faculty of Arts and Science.

### LABORATORY TECHNICIAN

English  
Mathematics  
Biology  
Chemistry  
An elective



*Awards and Financial Aid*

# AWARDS AND FINANCIAL AID

## GENERAL REGULATIONS

All inquiries concerning material in this section except University of Victoria graduate fellowships and scholarships should be directed to the Financial Aid Officer, Admissions Office. Information regarding graduate awards may be obtained from the Faculty of Graduate Studies, Building "N".

All awards adjudicated by the University of Victoria are administered by the Senate Committee on Awards.

To be eligible for a scholarship offered by the University, a student must take a full year's programme (this shall be at least fifteen units) which must include the required courses for the year in which the student is registered. Where credit has already been obtained in a required course, however, another may be substituted with the permission of the Dean of the Faculty concerned except that grades of compulsory courses must be included in the required number of units for the year and degree in which the student is registered.

A student who has a failure in one of the required courses for the year will not be eligible for an award based on academic merit. Except where terms and conditions of an award specifically state otherwise, award winners must return to the University of Victoria in the next regular session and must enrol in a full programme.

For general proficiency awards, 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, except that grades of compulsory courses will be included in computing the overall standing.

The University reserves the right to limit the amount of money retained by a student and, if necessary, to reassign awards to other students by reversion. In cases of reassignment by reversion, the names of the original recipients will be included in the published list of awards.

Where applications are necessary, the deadline for submission of application forms is April 30, unless otherwise stated.

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; unsatisfactory conduct, attendance or progress; withdrawal of the award by the donor.

Except where the donor directs otherwise, the proceeds of scholarships and bursaries issued by or through the University will be applied against the total fees for the academic year. If the amount of the award or awards exceeds the unpaid total fees for the academic year, the excess balance will be paid to the student.

If for any reason the original recipient becomes ineligible to hold an award, the funds will be reassigned, by reversion, to other students. In such cases, the published list of award winners will show only the names of the original recipients.

Other awards, such as medals or book prizes, if not presented directly by donors or their agents, will be forwarded to the winners upon receipt.

## DEFINITIONS

- (a) An award is any scholarship, fellowship, bursary, medal or prize.
- (b) A scholarship or fellowship is a monetary award based on academic merit or excellence in the area to which the award pertains.
- (c) A bursary is a monetary award based on need and reasonable academic standing.
- (d) A medal is an award based on academic merit or excellence in the area to which the award pertains.
- (e) 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: None of the 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. See pages 312 - 325.

Section 2: Government of British Columbia awards. See page 326.

Section 3: University bursaries requiring application. See page 327.

Section 4: Undergraduate awards for which no application is necessary: selection of recipients is made by the Senate Committee on Awards. See pages 328 - 335.

Section 5: Undergraduate awards for which application must be made to the Senate Committee on Awards. See pages 336 - 338.

Section 6: Undergraduate awards administered by the University of British Columbia and other institutions and organizations. See pages 339 - 344.

Section 7: Awards for graduate study. See page 345.

Section 8: Loan funds. See pages 346 - 347.

# SECTION 1

## ENTRANCE AWARDS

The following scholarships are open to students who have completed University Entrance and are proceeding to the University of Victoria

### ENTRANCE AWARDS ADMINISTERED BY THE UNIVERSITY OF VICTORIA

Application forms for the following awards may be obtained from the Financial Aid Officer, Admissions Office, University of Victoria, Victoria, B.C., and must be returned before June 30.

**PRESIDENT'S ENTRANCE SCHOLARSHIPS** — Five scholarships of \$500 each for British Columbia secondary school graduates who are entering the University of Victoria in September 1970. Awards will be based upon high standing in the matriculation record of students in June 1970. Recipients will be selected by the Committee on Awards and awards will be announced shortly after the release of the examination results in the summer.

**CANADIAN UNION OF PUBLIC EMPLOYEES SCHOLARSHIPS** — The C.U.P.E. will provide annual scholarships of \$100 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 standing or a good second class in the Departmental Examinations in the Grade 12 Academic-Technical Programme. All other things being equal, preference will be given to sons or daughters of members of the Canadian Union of Public Employees. Recipients will be selected by the Committee on Awards in consultation with officials of School Districts 61 and 63.

**THE HARBORD INSURANCE LTD. SCHOLARSHIP** — Five hundred dollars (\$500) awarded annually to the most promising scholar leaving School District No. 61, entering the School of Fine Arts at the University 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 No. 61.

**THE ISLAND TUG AND BARGE LTD. SCHOLARSHIP** — One hundred and fifty dollars (\$150) will be awarded to a deserving and qualified member of the Indian community of Vancouver Island, any of the Gulf Islands, the West Coast of the Mainland, or the Queen Charlotte Islands, who gained academic success in University Entrance examinations and enters First Year at the University of Victoria. Selection of the winner will be made by the Committee on Awards after consultation with the District Superintendent of Indian Schools.

**LABATT BREWERIES OF BRITISH COLUMBIA LIMITED SCHOLARSHIP** — A scholarship of four hundred dollars (\$400) 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 or Grade 13 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 Department of Education in June.

\***SARA AND JEAN MACDONALD BURSARY FUND** — Provides annual bursaries 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.

\* Administered by the University of Victoria Foundation.

**PACIFIC COAST FISHERMEN'S MUTUAL MARINE INSURANCE COMPANY BURSARY** — A bursary of \$450 is 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. It is open to students entering University from Grade XII or XIII. 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.

**UNIVERSITY OF VICTORIA ALUMNI SCHOLARSHIP** — Contributions to the Alumni Annual Giving Campaign and other funds have made possible the institution of a \$500 scholarship by the Alumni Association of the University of Victoria. The award, renewable annually for four years, will be awarded to students in British Columbia writing the required Department of Education scholarship examinations in June, who are proceeding from Grade XII (Graduation on the Academic-Technical Programme) to the University of Victoria. Winners will be selected by a special Alumni Screening Committee representing the University of Victoria and the Alumni Association. The selection will be based on the following criteria: high academic standing, leadership qualities, and exceptional talent.

ENTRANCE AWARDS, ADMINISTERED BY THE  
SCHOLARSHIP AND BURSARY COMMITTEE, ROOM 207, BUCHANAN  
BUILDING, UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER 8, B.C.

**(1) Scholarships which must be applied for by May 15.**

**BRITISH COLUMBIA FOREST PRODUCTS LIMITED ENTRANCE SCHOLARSHIPS** — Ten scholarships of four hundred dollars (\$400) each are offered by British Columbia Forest Products Limited to sons and daughters of employees who, by June 30 of the year in which the award is made, have or will have served the Company for at least one year. They are open to students proceeding in the fall from Grade XII or Grade XIII to a full course of studies at the University of British Columbia or the University of Victoria. Candidates for these scholarships must write the required scholarship examinations conducted in June by the Department of Education, B.C. The scholarships will be awarded to the ten candidates obtaining highest standing. No award will normally be made, however, to an applicant with an overall average of less than 70%. The grades obtained in other subjects taken during the year may also be considered. Applicants for these scholarships must complete the "General Application for Scholarship" form, which may be obtained from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of B.C., Vancouver 8, B.C. These applications must be received by the University of British Columbia not later than May 15 and must contain the necessary details of family service with the Company. Before June 1 they must also complete and submit through the school principal, the special form required by the Department of Education from all those writing the scholarship examinations.

**THE FEDERATION OF TELEPHONE WORKERS OF BRITISH COLUMBIA, PLANT DIVISION, SCHOLARSHIP** — The Federation of Telephone Workers of British Columbia, Plant Division, offers a scholarship of five hundred dollars (\$500) 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 or XIII in high school to a full programme of studies at the University of British Columbia or the University of Victoria. To be eligible for consideration a candidate must have an overall average of at least 70% in the subjects of the grade in which he or she is registered. Candidates in Grade XIII will be considered on the basis of standing obtained in the Departmental Examinations written in June; those in Grade XII will be considered on the basis either of standing received by recommendation or in the June Departmental Examinations. The winner will be selected by the University of British Columbia, in consultation with the Federation, from those who so qualify. In the final selection, a major factor will be the financial circumstances of applicants and their families. All candidates must apply to the

University of British Columbia not later than May 15 by completing the "General Application for Scholarship" form. This form may be obtained from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. Applications should contain details of family service with the Federation and other pertinent information. The applicant must forward his official high school transcript (or an exact copy) to the University of B.C. as soon as it is received.

**THE FEDERATION OF TELEPHONE WORKERS OF BRITISH COLUMBIA, TRAFFIC DIVISION, SCHOLARSHIP** — The Federation of Telephone Workers of British Columbia, Traffic Division, offers a scholarship of five hundred dollars (\$500) to sons and daughters of members (with the same service). It is open in competition to students proceeding in the fall from Grade XII or XIII in high school to a full programme of studies at the University of British Columbia or the University of Victoria. To be eligible for consideration a candidate must have an overall average of at least 70% in the subjects of the grade in which he or she is registered. Candidates in Grade XIII will be considered on the basis of standing in the Departmental Examinations written in June; those in Grade XII will be considered on the basis either of standing received by recommendation or in the June Departmental Examinations. The winner will be selected by the University of British Columbia, in consultation with the Federation, from those who so qualify. In the final selection, a major factor will be the financial circumstances of applicants and their families. All candidates must apply to the University of British Columbia not later than May 15 by completing the "General Application for Scholarship" form. This form may be obtained from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. Applications should contain details of family service with the Federation and other pertinent information. The applicant must forward his official high school transcript (or an exact copy) to the University of British Columbia as soon as it is received.

**THE INTERNATIONAL LONGSHOREMEN'S AND WAREHOUSEMEN'S UNION ENTRANCE SCHOLARSHIPS** — Four scholarships of \$400 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 obtain the highest standing in Grade XII or XIII written examinations conducted in June by the Department of Education, Victoria, B.C., and who are proceeding in the fall to a full programme of studies at Simon Fraser University, University of British Columbia or the University of Victoria. Students who wish to compete for these must apply on the "General Application for Scholarship" form, which may be obtained from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. The completed application must be received at the University of British Columbia by May 15. 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.

**OCEAN CEMENT LIMITED ENTRANCE SCHOLARSHIPS** — Ocean Cement Limited annually offers scholarships to a total of \$1,000, open in competition to employees' sons and daughters who are proceeding in the fall from Grade XII or XIII to a full course of University studies. Three scholarships of approximately equal value are provided, one for attendance at each of the University of British Columbia, the University of Victoria, and Simon Fraser University, or, as may be recommended. Candidates for these scholarships must (a) write the Government of British Columbia scholarship examinations conducted in June by the Department of Education, B.C., and (b) complete the General Application for Scholarship Form, which may be obtained from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. The completed application must be returned to University of British Columbia not later than May 31. These scholarships will be awarded to the applicants who, in the opinion of the Selection Committee are best qualified in terms of academic merit combined with interest and participation in school or community affairs.

**THE ROYAL ARCH SCHOLARSHIP** — Four scholarships, in the amount of \$300 each, have been established by the Royal Arch Masonic Order to give assistance to sons and daughters of members of Chapters in British Columbia or Yukon

Territory, in good standing, or of deceased members, who without assistance would be unable to continue through university. They will be awarded annually, on the basis of scholastic standing and need, to an eligible student proceeding directly in the fall from Grade XII or XIII to a full programme of studies at the University of British Columbia or the University of Victoria or Simon Fraser University or Notre Dame University of Nelson. Candidates for these scholarships must (a) write the required scholarship examinations conducted in June by the Department of Education, B.C.; (b) complete the "General Application for Scholarship" form, which may be obtained from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia. This application form, which is to be received by the University not later than May 15, must clearly indicate (i) the applicant's relationship to a member or deceased member of the Royal Arch Masonic Order, the name of the member, and the name of the Chapter with which he is or was connected; and (ii) the applicant's financial circumstances and those of his or her immediate family. Only candidates who obtain an overall average of 70% in the Department examinations will be considered. If, in the opinion of the University, no applicant is suitably qualified, the award will be withheld.

**STANDARD OIL COMPANY OF BRITISH COLUMBIA LIMITED ENTRANCE SCHOLARSHIP**—Standard Oil Company of British Columbia Limited offers a scholarship worth \$2,000 to students who are resident of British Columbia and are proceeding in the fall to studies in the First Year at Simon Fraser University, University of British Columbia or the University of Victoria or other approved Canadian university of recognized standing, in a full course leading to a degree. Candidates must write the required scholarship examinations for High School Graduation on the Academic-Technical Programme conducted in June by the Department of Education, Victoria, B.C. The scholarship will normally be awarded to the eligible applicant obtaining highest standing in these examinations, but the marks obtained in other subjects taken during the year may also be considered. In the event of a tie the decision will rest with the Selection Committee. Should this applicant win another award, however, the scholarship may be given, at the discretion of the University of British Columbia, to the eligible candidate with next highest standing. No award will be made to a candidate with an overall average less than 75%. General regulations of the University of British Columbia for scholarships are also applicable to this scholarship. The winner of this award will receive \$500 during the first year of attendance at the University, and is eligible for renewals of \$500 a year for three further years. Each renewal is subject to maintenance of standing satisfactory to the University of British Columbia. The student must apply by letter, to be received by the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C., not later than June 1. In the letter he should give his full name, home address, name and address of the school he is attending, and the name of the university he will attend in the fall.

**STANDARD OIL COMPANY OF BRITISH COLUMBIA LIMITED SPECIAL SCHOLARSHIP**—Standard Oil Company of British Columbia Limited offers a scholarship worth \$2,000 to children or wards of employees or annuitants of the Standard Oil Company of British Columbia, or of deceased employees who die while in the employ of the Company or as annuitants of the Company, and who have or had not less than one year of service with the Company. It will be open in competition to students proceeding in the fall to the First Year at Simon Fraser University, University of British Columbia or the University of Victoria or other approved Canadian university of recognized standing, in a full course leading to a degree. Candidates must write the required scholastic examinations for High School Graduation on the Academic-Technical Programme conducted in June by the Department of Education, Victoria, B.C. The scholarship will normally be awarded to the eligible applicant obtaining highest standing in these examinations, but standing obtained in other subjects taken during the year may also be considered. Should this applicant win another award, however, the scholarship may be given, at the discretion of the University of British Columbia, to the eligible candidate with next highest standing. No award will be made to a candidate with an overall average less than 70%. General regulations of the University of British Columbia are also applicable to this scholarship. The winner of this award will receive \$500 during the first year of attendance at the University, and is eligible for renewals of \$500 a year for three further years. Each renewal

is subject to maintenance of standing satisfactory to the University of British Columbia. The student must apply by letter to be received by the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C., not later than June 1. In the letter the student should give his full name and home address, name and address of his school, and the name of the institution he will attend in the fall. He must also give essential details of family employment with the Company.

**THE VANCOUVER SUN SCHOLARSHIPS FOR CARRIERS** — The Vancouver Sun offers annually two scholarships of \$500 each to students proceeding in the fall from Grade XII to the First Year at Simon Fraser University, University of British Columbia or the University of Victoria, in a full programme leading to a degree in any field. To be eligible applicants must have been carriers of the Vancouver Sun for at least two years. The scholarships will normally be awarded to the two applicants who rank highest on the basis of the marks obtained in the written examinations for High School Graduation on the Academic-Technical Programme conducted in June by the Department of Education, B.C., but standing obtained in other subjects taken during the year may also be considered. Applicants must write the required examinations in the scholarship subjects prescribed by regulations of the Department and the University. Winners who obtain and maintain First Class standing (or who, in successive years of their undergraduate course, rank in the top 10% of the Faculty and Year in which they are registered) will be eligible for renewals of \$500 a year until graduation, not exceeding a total of five payments in all. Selection of the winners will be made by the University of British Columbia. A student who wishes to be considered for one of these scholarships must apply by letter to the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C., not later than May 15. The letter of application must be accompanied by the service certificate of the Vancouver Sun. The winner of one of these scholarships, while not also permitted to hold the Vancouver Sun Special Scholarship for Carriers may, however, accept other awards offered to him.

**THE VANCOUVER SUN SPECIAL SCHOLARSHIP FOR CARRIERS** — The Vancouver Sun offers annually a scholarship of \$500 to students proceeding in the fall from Grade XII to the First Year at the University of British Columbia, or the University of Victoria, or Simon Fraser University, in a full programme leading to a degree in any field. To be eligible an applicant must have been a carrier for the Vancouver Sun for at least two years, and must take the written examinations for High School Graduation on the Academic-Technical Programme, conducted in June by the Department of Education, B.C. All applicants must write the required examinations in the scholarship subjects prescribed by the regulations of the Department and the University. An applicant will be considered only if he obtains an overall average of at least 75%. The scholarship will be awarded to the eligible applicant who, in the opinion of the University of British Columbia, is the most outstanding in combining high scholastic attainment with achievement in one or more areas such as service to the school and community, writing drama, fine arts; debating and public speaking; sports. A winner who, in successive years of his undergraduate course, obtains and maintains First Class standing (or ranks in the top 10% of the Year and Faculty in which he is registered) will be eligible for renewals of \$500 a year until graduation, not exceeding a total of five payments in all. All candidates must complete the "General Application for Scholarship" form, obtainable from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. The completed application, accompanied by the service certificate of the Vancouver Sun must be received by the University of British Columbia not later than May 15. Candidates will be judged on the basis of their examination grades, their personal letters (see application form for details), and letters of recommendation from their references. The winner of this scholarship, while not also permitted to hold one of the Vancouver Sun Scholarships for Carriers, may accept other awards offered to him.

**THE ST. JOSEPH'S UNIT, LOCAL, 180, SCHOLARSHIP** — A scholarship of \$250 is offered by the St. Joseph's Unit of the Hospital Employees' Union Local 180 to students proceeding in the fall from Grade XII or XIII of secondary school to a full programme of studies at the University of B.C., University of Victoria, Notre Dame University of Nelson, Vancouver City College, or Simon

Fraser University in any field leading to a degree. To be eligible an applicant must (a) be the son or daughter of an active member of the Hospital Employees' Union Local 180 ("active" being interpreted as on the staff of a hospital within the jurisdiction of Local 180, or on the staffs as of January 1st of the year of the award but since super-annuated); (b) write the Government Examinations conducted in June by the Department of Education, B.C. and obtain clear standing with an overall average of not less than 70%; (c) obtain from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia Bursary Application Form after June 1, and file the completed form with the University of B.C. not later than July 15th. The information given in the form must clearly establish the applicant's family connection with Local 180 and one of the hospitals. Candidates should note that intention to write Government Scholarship Examinations must be filed with the Department of Education, Victoria, B.C., through the school principal, before June 1st. The scholarship will be awarded to the candidate who, in the opinion of the University (in consultation with the Union), is best qualified in terms of academic standing and financial need.

**VANCOUVER GENERAL UNIT, LOCAL 180, SCHOLARSHIPS** — Two scholarships of \$350 each are offered annually by the Vancouver General Unit of the Hospital Employees' Union Local 180 to students proceeding in the fall from Grade XII or XIII of secondary school to a full programme of studies at the University of B.C., Simon Fraser University, Notre Dame University of Nelson, Vancouver City College, or University of Victoria in any field leading to a degree. To be eligible an applicant must (a) be the son or daughter of an active member of the Hospital Employees' Union Local 180 ("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 the award but since superannuated); (b) write the Government Scholarship Examinations conducted in June by the Department of Education, B.C. and obtain clear standing with an overall average of not less than 70%; (c) obtain from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of B.C. Bursary Application Form after June 1st, and file the completed form with the University of B.C. not later than July 5th. The information given in the form must clearly establish the applicant's family connection with Local 180 and with one of the hospitals. Candidates should note that intention to write Government Scholarship Examinations must be filed with the Department of Education, Victoria, B.C., through the school principal, before June 1st. The scholarships will be awarded to the two candidates who, in the opinion of the University of B.C. (in consultation with the Union), are best qualified in terms of academic standing and financial need.

**THE HOSPITAL EMPLOYEES' UNION LOCAL 180 SCHOLARSHIPS** — Two scholarships of \$250 each are offered annually by the Hospital Employees' Union Local 180 to students who are proceeding in the fall from Grade XII or XIII of secondary school to a full programme of studies at the University of B.C., Simon Fraser University, Notre Dame University of Nelson, Vancouver City College, or University of Victoria in any field leading to a degree. To be eligible an applicant must (a) 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); (b) write the Government Scholarship Examinations conducted in June by the Department of Education, B.C. and obtain clear standing with an overall average of not less than 70%; (c) obtain from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of B.C. Bursary Application Form after June 1st, and file the completed form with the University of B.C. not later than July 15th. The information given in the form must clearly establish the applicant's family connection with Local 180 and with one of the hospitals. Candidates should note that intention to write Government Scholarships Examinations must be filed with the Department of Education, Victoria, B.C., through the school principal, before June 1st. The scholarships will be awarded to the two candidates who, in the opinion of the University of B.C. (in consultation with the Union), are best qualified in terms of academic standing and financial need.

**THE RETAIL CLERKS UNION, LOCAL 1518, SCHOLARSHIPS** — The Retail Clerks Union, Local 1518, offers two scholarships of \$350 each to students beginning studies in a full academic programme of studies at the University of B.C.,

University of Victoria, or Simon Fraser University. The awards will be made to the applicants with the highest standing in the final examinations. Students entering from Grades XII or XIII must write the scholarship examinations conducted in June by the Department of Education. 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. Application must be made on the appropriate Application Form for Scholarship, which may be obtained from, and must be returned to, the Scholarship and Bursary Office, Room 207, Buchanan Building, University of B.C. The last day for receiving applications is June 1st.

## **(2) Bursaries which must be applied for by July 15.**

**BRITISH COLUMBIA FOREST PRODUCTS LIMITED BURSARIES** — Bursaries to a total of \$8,000, each with a maximum value of \$300, are offered by British Columbia Forest Products Limited to sons and daughters 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 and whose earnings are limited (see Company brochure for details). They are open to students beginning or continuing studies in the fall in a full undergraduate programme of studies at Simon Fraser University, the University of British Columbia or the University of Victoria. Awards will be made to students selected on the basis of their academic standing and need for financial assistance. No award will normally be made, however, to a candidate who obtains an overall average of less than C+ or who is required to write supplementals to obtain clear standing in a full year's work. Winners of the Company's Entrance Scholarships will not be permitted to receive a Company Bursary in the same year. All candidates must apply on the Special Bursary form, which may be obtained from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. This application must be received by the University of British Columbia not later than July 15 and must contain the necessary details of family service with the Company. The applicant must forward as soon as possible an official transcript of record at secondary school or university to the University of British Columbia Scholarship and Bursary Committee.

**THE GRAND LODGE MASONIC BURSARIES** — The Grand Lodge of Antient Free and Accepted Masons of British Columbia annually offers bursaries in the range of \$200 to \$500 each to the sons, daughters, and legal wards of active members of Masonic Lodges in British Columbia or of deceased members who, at the time of death, were active members of these Lodges. The purpose of these bursaries is to give assistance to students who, without financial aid, would find it impossible or difficult to continue their education. Selection of winners will be made by the University of British Columbia from applicants with satisfactory academic standing who are entering undergraduate studies in the first or second year at the University of British Columbia, the University of Victoria, Simon Fraser University, or the B.C. Institute of Technology, in a full programme leading to a degree in any field. In order to be considered, a candidate must obtain from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C., a Special Bursary Application form. The completed application must be received at the University of British Columbia not later than July 15. If the applicant is the son, daughter, or legal ward of a member of the Lodge the application must be accompanied by a letter from the Secretary of the Lodge giving the name and address and details of the lodge with which the applicant's immediate family is or has been associated. Since a special committee considers these awards, a student applying for other bursaries must submit a separate application for them.

**THE RETAIL WHOLESALE & DEPARTMENT STORE UNION LOCAL 580 BURSARY** — Two bursaries of \$250 each is offered by the Retail Wholesale & Department Store Union Local 580 to sons, daughters, and legal wards of active members of the Union in good standing. They are open in competition to applicants who are proceeding from Grade XII or Grade XIII to begin studies at the University of British Columbia, the University of Victoria, or Simon Fraser University, in a full programme leading to a degree 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 or XIII). In the selection of the winners, the basic factor will be the financial need of the candidates and their families. Those who wish to apply for this bursary must obtain the University Bursary Form from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. The completed application must be received by them not later than July 15. The winners will be selected in consultation with the Union.

**THE STRY CREDIT UNION BURSARY** — A bursary of \$400 is offered by Stry Credit Union to students who are members of the Stry Credit Union, and who are the sons, daughters, or legal dependents of members of at least one year's standing. It is open in competition to students proceeding from Grade XII or Grade XIII to attendance at the University of British Columbia or the University of Victoria in a full course leading to a degree. The winner will receive \$300 during the first year of studies and, subject to satisfactory standing, \$100 during the second year. The award will be made on the basis of financial need and academic standing. If no suitable candidates apply in any year, the award will not be made in that year, but will accrue for the purpose of making additional awards in a future year, when more than one suitable candidate has applied. Applications, on forms obtainable from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C., must be received at the University of British Columbia not later than July 15.

**WHITE SPOT LIMITED BURSARIES** — Two bursaries, having a total value of \$1,000 each, are provided by White Spot Limited and its subsidiaries for their employees, and sons and daughters of their employees who have served with the firm for at least two years. These bursaries are paid in annual amounts of \$250 each and are open in competition to eligible students proceeding from Grade XII or XIII of secondary school to a full programme 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 at least one year's part-time employment with the Company while attending secondary school, and 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 Scholarship Committee of the University of British Columbia on the basis of academic standing and need for financial assistance. To be considered, a candidate must (a) write the standard departmental examinations conducted in June by the Department of Education, B.C., and obtain an overall average of at least 65% in these examinations; (b) submit the special bursary form to the University of British Columbia not later than July 15. This form may be obtained after June 1st from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. Winners will be considered for renewals of these bursaries 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 in all subjects with a minimum overall average of B-, and need financial assistance.

### **(3) The Chris Spencer Foundation Special Scholarships.**

#### **THE CHRIS SPENCER FOUNDATION SPECIAL SCHOLARSHIPS**

*Special Note: A student should not apply for a Chris Spencer Foundation Special Scholarship unless he has an overall average of over 80% in his school work, ranks well in the top 10% of students in his grade, and if he is a Grade XII student, is likely to have an average of at least 90% in the Government of British Columbia Scholarship Examinations, or, if a Grade XIII student, an average of at least 85% in these examinations. This high standard of academic excellence must also be combined with distinct achievement in other activities in the school or community.*

Three scholarships of \$500 each, with renewals subject to maintenance of academic standing, are offered in competition to students in Grade XII (Secondary School Graduation, Academic-Technical) or Grade XIII (Senior Matriculation) who, in the session 1970-71, will attend the University of British Columbia, the University of Victoria, or Simon Fraser University for a full academic year in a full programme leading to a degree. For the purpose of these scholarships an academic

year at the University of British Columbia or the University of Victoria is the period extending from September of one year to the following May, and at Simon Fraser it consists of two semesters between September of one year and the following September. Each scholarship will be paid in two instalments of \$250 each, the first when the winner begins attendance in the first half of the academic year and the second when he begins attendance in the second half.

*Basis of Selection* — Winners will be selected on the basis of high scholastic achievement combined with outstanding personal qualities and distinction as exemplified by service to others, interest and participation in the school and/or community in activities such as sports, student government, youth groups, fine arts, music. Special attention will be given to the qualities developed through these activities and of indication, during the period of attendance at secondary school, or moral force of character, and of instincts to lead and take an interest in classmates. These scholarships are open only to students whose ordinary domicile, home, or residence is in British Columbia and who are attending school in British Columbia.

*Method of Application* — All candidates must apply on the Chris Spencer Foundation Scholarship Application Form, obtainable from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. The completed form should be returned to the University of British Columbia by April 15, and will not be accepted after May 1. Applicants must be eligible in all respects to compete for Government of British Columbia Scholarships and must write the Government Scholarship Examinations conducted in June by the Department of Education, B.C. Candidates in Grade XII should not apply unless they are likely to obtain an average of 90% or better in these examinations and first class grade (80%) in the other subjects taken during the year. Grade XIII students similarly should not apply unless they are likely to obtain an overall average of at least 85%.

*Renewals* — Winners who, in a full programme in an Academic Year, maintain First Class standing or rank in the upper 10% of all students in the year and faculty in which they are registered, will be awarded renewals in the amount of \$500 for the next academic year. Renewals will not be granted after graduation or more than four times after the initial award (whichever is the smaller number of academic years involved.) The renewals are also conditional upon full-time attendance at the University of British Columbia, University of Victoria, or Simon Fraser University. A student is permitted, if he wishes, to transfer from one of these institutions to another, but only once. Deferment of awards (original or renewal) will be considered only for certified medical reasons.

#### ENTRANCE AWARDS ADMINISTERED BY OTHER INSTITUTIONS AND ORGANIZATIONS

**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 application should be sent directly to:

Bobby Bauer Memorial Foundation,  
60 Victoria Street North,  
Kitchener, Ontario.

**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. Application to compete should be made to the high school principal.

**THE B.C. INDIAN ARTS AND WELFARE SOCIETY MEMORIAL BURSARY** — A bursary of \$100 will be awarded annually by the B.C. Indian Arts and Welfare Society in memory of those Indian Canadians who gave their lives in either World War. Native Indian applicants must be from the Province of British Colum-

bia and must be planning to enter one of the established Universities or Colleges in British Columbia, or some recognized Technical School or other training centre. The award will be made by the Executive Committee of the B.C. Indian Arts and Welfare Society. If no application is received from a student entering the first year of University, then the bursary may be awarded to a student enrolled in any of the senior years. Letters of application should be directed to: The Honorary Secretary, B.C. Indian Arts and Welfare Society, c/o The Provincial Museum, Victoria, B.C. The deadline date for applications is August 15.

**COMINCO DIAMOND JUBILEE 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 of 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. By recognizing and rewarding scholastic attainment by children of Cominco employees, these awards shall also serve to mark the Diamond Jubilee of Cominco. 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 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, Education Awards Committee, Cominco Ltd., Trail, B.C.

**CROWN ZELLERBACH CANADA FOUNDATION SCHOLARSHIPS** — Eight scholarships, each with a maximum value of \$2,000 are offered annually by Crown Zellerbach Canada Foundation to students proceeding from secondary schools to studies in any field at the University of British Columbia, University of Victoria, Simon Fraser University, or Notre Dame University of Nelson. Of these awards, one will be offered in each of the following areas: Courtenay-Comox, Campbell River, Ladysmith Secondary School, Nanaimo, Ocean Falls, Richmond School District No. 38, the combined areas of the School Districts of Vernon (No. 22), Kelowna (No. 23), Summerland (No. 77), Keremeos (No. 16), Penticton (No. 15), South Okanagan (No. 14), and the combined areas of New Westminster (No. 40), Coquitlam (No. 43), and Surrey (No. 36). To be eligible for consideration a candidate must attend school in one of these areas and the candidate's parents must also reside in one of these areas. Selection of winners will be made by the School Boards concerned on the basis of academic standing, leadership and citizenship. In the event the winning candidate be awarded a scholarship of greater value, the selection committee may make the award to a second qualifying student. Application to compete should be made by June 1st through the school principal. Payment of awards, in the amount of \$400 per annum, will be made to winners in two equal instalments, half near the end of October and half early in January. To be eligible a winner must take full-time undergraduate studies over a full academic year (two consecutive semesters). Renewals each year are subject to satisfactory academic progress. A scholarship may be held for a maximum of five academic years of undergraduate studies, or until the winner completes his undergraduate studies, whichever is the shorter period. If, however, he fails to maintain satisfactory academic standing, or discontinues attendance at university, he will forfeit the remaining payments of his scholarship, unless he has been granted postponement for a specified period for medical or similar reasons.

**CECILIA GREEN MEMORIAL SCHOLARSHIP** — One hundred dollars (\$100) awarded to the first ranking student from Victoria High School in the University Entrance Examinations who has not already merited another award. The recipient must attend the University of Victoria or the University of British Columbia.

**IMPERIAL OIL HIGHER EDUCATION AWARDS** — Imperial Oil Limited offers annually free tuition and other compulsory fees to all children or wards of employees and annuitants who proceed to higher education courses. The courses may be taken at any Canadian university or other approved institution of higher learning. Each award is tenable for a maximum of four years. To be eligible a student must attain an average mark of 70% in the appropriate secondary school examinations in the subjects required for admittance to the approved 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 7, Ontario.

**THE I.W.A. LOCAL 1-80, BURSARY** — The International Woodworkers of America Local 1-80 offers a bursary in the amount of \$400 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. For the purpose of eligibility in applying for the bursary the wife, son or daughter of a deceased I.W.A. Local 1-80 member in good standing at the time of his decease, or a member who has retired from the industry and holds a Retirement Card from this local union, shall also be deemed eligible. In making the award, the bursary committee will be guided by the following: The average marks obtained by the Grade XII student during that school term; Indication of need; All applicants must be on the university programme proceeding to any degree-granting university, or to the B.C. Institute of Technology. All those desiring to compete must notify Ed Linder, Financial Secretary of the I.W.A. Local 1-80, 351 Brae Rd., Duncan, B.C. by a letter not later than June 21st, 1970. The I.W.A. Local 1-80 reserves the right to withhold the bursary if no candidate makes sufficiently high standing.

**MACMILLAN BLOEDEL LIMITED COMMUNITY SCHOLARSHIPS** — Eleven scholarships of \$500 each, of which ten are awarded in British Columbia; one in each of School District 65 (Duncan-Cowichan), 67 (Ladysmith-Chemainus), 68 (Nanaimo), 69 (Qualicum), 70 (Alberni), 79 (Ucluelet-Tofino), 48 (Howe Sound), and 85 (Vancouver Island North); and two in School District 47 (Powell River), are offered by Macmillan Bloedel Limited. These scholarships are open to students graduating from Secondary School and proceeding to studies at recognized institutes of higher learning. Awards will be made on the basis of academic ability and potential leadership, as indicated by grade achievements in Grades XI and XII and participation in school activities. The winner in each school will be chosen in June by a committee consisting of the Principal, the Vice-Principal, the Senior Girls' and Senior Boys' Counsellors, and a representative of MacMillan Bloedel Limited. Further information may be obtained from the Principal of the School.

**MACMILLAN BLOEDEL LIMITED — SCHOLARSHIPS TO DEPENDENTS OF EMPLOYEES** — Ten Scholarships of \$500 each awarded to dependents of employees of MacMillan Bloedel Limited and subsidiary Companies. These scholarships are open to students beginning their studies at any recognized University in Canada or the United States and who are legal dependents of employees of the Company or its subsidiaries. Awards will be made on the basis of academic ability and potential leadership as indicated by grade achievements in Grades XI and XII and participation in school activities. Winners will be selected by a committee of three, two from the Company and one from the British Columbia Department of Education. Application forms which must be submitted by May 31 each year, may be obtained from the Manager or Personnel Supervisor at each operating Division, or from the Secretary, Scholarship Committee, Macmillan Bloedel Limited, 1075 West Georgia St., Vancouver 5, B.C.

**MEDICINE HAT NEWS SCHOLARSHIPS** — Four scholarships, each valued at \$150, are offered annually. They are available to carriers and former carriers of the *News* and to children of employees of the *News*. They are tenable at a university, accredited junior college or accredited technical institute. Selection will be based on school performance. The purpose is to help young men and women make a start in university or technical education. Application forms are obtainable

from *The Medicine Hat News*, Medicine Hat, Alberta, and must be returned not later than August 1.

**NAVAL OFFICERS' ASSOCIATION OF BRITISH COLUMBIA BURSARY LOANS** — Several bursary loans not exceeding \$300 each are offered to students beginning or continuing studies at the University of British Columbia, Simon Fraser University, Notre Dame University, or the University of Victoria, with the intention either of following a permanent career in the Royal Canadian Navy or following a course of study which, coupled with such person's past associations, will qualify such person as potential personnel for the Royal Canadian Navy in times of national emergency. Preference will be given to present or former members of a cadet force, of a reserve force or of the permanent force, or the sons or daughters of any Commissioned Officer, Warrant Officer, Rating or man who has served or is now serving in the British Commonwealth naval forces or Merchant navies. Awards will be made on the basis of combined academic standing and need. These loans are repayable without interest within eighteen months after graduation. If by the due date the student has joined the permanent force, the loan may be cancelled in its entirety; if he has joined the reserve force 50% of it may be cancelled. Applications should be filed not later than October 15 with the Naval Officers' Association of British Columbia, Box 823, Station A, Vancouver, B.C.

**NAVAL OFFICERS' ASSOCIATION OF BRITISH COLUMBIA SCHOLARSHIPS** — Several scholarships of amounts up to \$250 each, provided by the Naval Officers' Association of British Columbia are offered to students beginning or continuing studies at the University of British Columbia, Simon Fraser University, Notre Dame University or the University of Victoria with the intention either of following a permanent career in the Royal Canadian Navy or following a course of study which, coupled with such person's past association, will qualify such person as potential personnel for the Royal Canadian Navy in times of national emergency. Preference will be given to present or former members of a cadet force, of a reserve force or of the permanent force, or the sons or daughters of any Commissioned Officer, Warrant Officer, Rating or man who has served or is now serving in the British Commonwealth naval forces or Merchant navies. Awards will be made on the basis of all-round proficiency in the combination of academic studies, need and present or former interest in or association with a cadet force, reserve force or permanent force. Applications should be filed not later than October 15 with the Naval Officers' Association of British Columbia, Box 823, Station A, Vancouver, B.C. Winners of these awards are not precluded from accepting other awards which they may be offered.

**ROYAL CANADIAN LEGION (PACIFIC COMMAND) SCHOLARSHIPS** — The Legion (Pacific Command), offers annually a number of scholarships for students proceeding from high school to university. These 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, 1531 West Pender Street, Vancouver 5, B.C.

**TRANS MOUNTAIN OIL PIPELINE CO. HIGHER EDUCATION AWARDS** — Up to five Higher Education Awards will be offered annually by the Trans-Mountain Oil Pipe Line 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 examinations 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 programme 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 Division Offices or the Personnel Dept. and forwarded to: The Trans Mountain Higher Education Awards Committee, c/o The Royal Trust Tower, Bentall Centre, Vancouver 2, B.C.

**THE UNIVERSITY OF VICTORIA SCIENCE FAIR AWARD** — The President of the University will award \$50 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 programme 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. H. McCaffery, Secretary Manager, B.C. Branch, Canadian Plumbing and Mechanical Contractors Association, 1128 West Georgia Street, Vancouver 5, B.C.

**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 Departmental Examinations, held in June, and registering for a full first 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 Scholarships shall then revert to the student having the next highest standing.

**THE WESTMINSTER REGIMENT ASSOCIATION SCHOLARSHIP** — This scholarship of \$500, the gift of the Westminster Regiment Association, will be awarded annually to a worthy and deserving student who is continuing his or her 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 Westminster Regiment Association, or a member of the Westminster Regiment CA(M) or one of those battalions which the Westminster Regiment perpetuates, i.e. the 47th, 104th or 131st. The applicant may be in his or her 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 Westminster Regiment Association, Box 854, New Westminster, B.C. The cut-off date for applications is June 30.

**THE HON. W. C. WOODWARD UNIVERSITY MEMORIAL SCHOLARSHIPS** — These scholarships, each of \$500 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 dependants of regular full-time staff, of retired staff (retired on Store pension), and of deceased staff (who died while a Woodward's regular full-time staff member). Two of these scholarships are available for attendance at the University of Alberta or the University of Calgary, and three are available for attendance at the University of British Columbia, the University of Victoria, Simon Fraser University, or Notre Dame University of Nelson. 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 Provincial examinations and British Columbia candidates the Provincial Scholarship examinations, conducted in June by appropriate Provincial Department of Education. Awards will be made on the basis of (a) academic standing, (b) activity and interest in youth programmes, 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 1st onwards and must be completed and returned to Woodward's by July 15th. Applicants must include the official transcript of their Secondary School record issued by the Department of Education of the Province. If the transcript is not available by July 15th., it must be forwarded by the student at the earliest possible date after July 15th., directly to the Administrator of Students Awards Office, University of Alberta, Edmonton, by the Alberta applicants, or to the Chairman, Joint Faculty Committee on Prizes, Scholarships and Bursaries, University of British Columbia, Vancouver 8, by the B.C. applicants.

## SECTION 2

### GOVERNMENT OF BRITISH COLUMBIA AWARDS

NOTE: Both these awards are subject to change after the Calendar goes to press.

**GOVERNMENT SCHOLARSHIPS** — Government Scholarships to the value of three quarters, one-half, or one-third of fees for one year in the University of Victoria can be won by students who obtain the appropriate standard for full course loads completed in Grade XII (academic-technical), Grade XIII, and undergraduate studies in the University. (Students enrolling in certain post-graduate studies, i.e., Diploma Programmes, B.L.C., B.S.W., LL.B., M.D., etc., may be eligible for government scholarship also).

All students competing for scholarship must have fulfilled regulations pertaining to residency and have submitted an accurately completed scholarship application form *by the specified date*.

Full information from the Department of Education will be available from the Financial Aid Officer well in advance of the submission date.

**GOVERNMENT BURSARIES** — Government Bursaries are provided annually. Eligibility for awards is based on academic acceptability, demonstrated financial need, and residency. Applications, complete in every respect, must be submitted by the date specified. The student also must be undertaking a full course load during the winter session to be eligible for a bursary award.

Bursaries are not repayable, and cannot be deferred. Priority in the granting of awards is given to students commencing their first year of university work. Bursary awards are not available for graduate studies.

Application forms and further information on bursaries, including date of application, will be available from the Financial Aid Officer, Admissions Office, well before the end of the university academic year.

## SECTION 3

### UNIVERSITY BURSARIES REQUIRING APPLICATION

In May 1965, the Board of Governors established a Tuition Assistance Bursary Fund. The Board expressed its concern about the possibility of certain qualified students not being able to attend the University because of serious financial difficulties.

Students who make application for assistance under this Bursary Fund are reminded:

- a) that the Fund is intended to assist students who are in serious financial difficulty;
- b) that students who come from families with a gross income in the range \$8,000-\$9,500 or more should not normally expect to receive assistance. Where there are special circumstances, appropriate consideration will be given, and each case will be judged on its own merits;
- c) that applicants may be asked to interview a committee or an officer of the University;
- d) that, in general, only those students who are registered for a full programme of courses are eligible for assistance.

Applications will be acceptable only after registration and must be submitted by dates specified on the application form. Application forms are available from the Financial Aid Officer, Admissions Office.

Completed application forms should be returned to:

Financial Aid Officer,  
Admissions Office,  
University of Victoria,  
Victoria, B.C.

## SECTION 4

### UNDERGRADUATE AWARDS FOR WHICH NO APPLICATION IS NECESSARY

The awards listed in this section are open only to students who attended the University of Victoria in the 1969-1970 winter session.

#### 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 the B.A. or B.Sc. degree, who stands at the head of the graduating class on the basis of the degree 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 programme), 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 programme. Selection of the students is left to the Faculty of Education, University of Victoria.

#### UNDERGRADUATE AWARDS

**\*THE KATHLEEN AGNEW MEMORIAL SCHOLARSHIP**—One hundred and fifty dollars (\$150) is granted for the purpose of stimulating the study of the History of Canada.

**ASSOCIATION OF CHILDHOOD EDUCATION (VICTORIA BRANCH) — MARIAN D. JAMES MEMORIAL AWARD**—Fifty dollars (\$50) to be presented annually by the Victoria Branch, Association of Childhood Education International, to a student in the Faculty of Education who has shown outstanding ability in practice teaching, who has high academic standing in the field of kindergarten or primary education and who will be continuing her studies in this field.

**\*THE J. ALAN BAKER MEMORIAL SCHOLARSHIP**—Five hundred dollars (\$500) awarded annually to a deserving and promising student in an honours programme and continuing into the third or fourth year at the University of Victoria.

**THE BAPCO SCHOLARSHIP**—One hundred dollars (\$100) awarded annually to the leader of second year Chemistry.

**BETA SIGMA PHI SORORITY CITY COUNCIL SCHOLARSHIP**—One hundred dollars (\$100) to be awarded annually to a promising and deserving woman student entering third or fourth year in Arts and Science or Education at the University of Victoria.

**BLANEY'S TRAVEL SERVICE LTD. AWARD**—An annual award of two hundred dollars (\$200) will be provided to a deserving and promising student who is returning to the University of Victoria in the following session. The selection will be made by the Senate Committee on Awards.

**THE BRITISH COLUMBIA TELEPHONE COMPANY SCHOLARSHIP**—One hundred dollars (\$100) awarded to a student of first or second year for excellence in Physics. The winner must continue university studies.

**CAMOSUN GYRO CLUB BURSARY**—The Camosun Gyro Club of Victoria will present a bursary in the amount of one hundred and fifty dollars (\$150) annually to a promising and deserving student of the first year going into second year.

**CANADIAN DAUGHTERS' LEAGUE, ASSEMBLY No. 5 — GERTRUDE M. RALSTON MEMORIAL BURSARY**—One hundred dollars (\$100) awarded to a deserving student, preferably one in Canadian history.

\*Administered by the University of Victoria Foundation.

**JOHN WESLEY AND EMILY E. CHURCH MEMORIAL SCHOLARSHIP** — One hundred dollars (\$100) awarded annually by Mr. W. J. V. Church to the student winning highest standing in Latin (Latin 100, 140), or in Greek, or in Latin and Greek, in the first year, and continuing with the subject (or subjects) in the second year at University of Victoria.

\***THE CLEARIHUE BURSARY** — Three hundred dollars (\$300) awarded annually by Dr. and Mrs. J. B. Clearihue 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 COMITAS CLUB SCHOLARSHIP** — Fifty dollars (\$50) to be awarded to a promising and deserving student from first, second or third year in the Faculty of Education who is returning for the following year.

\***MARY HANNAH COOPER SCHOLARSHIP FUND** — An annual award will be made to a worthy and deserving student. The selection will be made by the Senate Committee on Awards.

\***THE EDGAR FERRAR CORBET SCHOLARSHIP** — Two hundred and fifty dollars (\$250) to be awarded annually for proficiency in English to a second year student who is a graduate of a British Columbia public high school and who will be majoring or honouring in English in the third year.

\***MATTHEW COWAN ANNUAL SCHOLARSHIP** — Approximately one hundred and fifty dollars (\$150) awarded annually to a promising student with high academic standing. The winner must continue at the University of Victoria.

**THE CREDIT GRANTERS' ASSOCIATION OF VICTORIA SCHOLARSHIP** — Two hundred and fifty (\$250) to be awarded to an outstanding student in Economics 200 who is proceeding on an Economics Honours Programme at the University of Victoria. The selection is to be made by the Department of Economics.

\***CRESTVIEW-CHELSEA THEATRE AWARD** — An award will be offered at the discretion of the Theatre Division to a promising and deserving student in Theatre who is continuing at the University of Victoria.

\***THE ADELINE JULIENNE DELOUME MEMORIAL SCHOLARSHIPS** — One hundred dollars (\$100) 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 Programmes.

**T. EATON COMPANY (Canada) LTD. SCHOLARSHIP** — Two hundred dollars (\$200) awarded to a first year student of high standing in Mathematics 130 and, preferably, with a first-class average. The winner must continue at the University of Victoria.

**PERCY H. ELLIOTT MEMORIAL SCHOLARSHIP** — One hundred and thirty dollars (\$130) 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 and, unless service in the Armed Forces intervenes, proceeding immediately towards a degree.

\***THE H. O. ENGLISH SCHOLARSHIP** — Two hundred (\$200) dollars 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.

**FACULTY OF WOMEN'S CLUB PRIZE** — One hundred dollars (\$100) to be awarded to a deserving woman student continuing studies either at winter or summer session.

**FINE ARTS BURSARIES** — A variable number of bursaries are available each year to students registered in any year of the Visual Arts programme in the Faculty of

\*Administered by the University of Victoria Foundation.

Fine Arts on the basis of talent and need. The amount of each bursary is determined by funds available and the number of bursaries awarded. Selection to be made by the Faculty of Fine Arts.

\*THE GEORGE HAMILTON HARMAN MEMORIAL SCHOLARSHIP — This scholarship, made available by Miss Emily A. Harman of Toronto in memory of her late brother, is awarded for proficiency in studies in money and banking or in Economics.

\*THE WILLIAM A. AND FRANCES E. HARPER SCHOLARSHIP — Seventy-five dollars (\$75) to be awarded annually to a deserving and promising student in the Faculty of Education.

THE DON INGHAM MEMORIAL SCHOLARSHIP — This scholarship 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 student in Astronomy 200 who stands first in that course and who is returning to the University of Victoria and planning to take further courses in Astronomy.

THE ISLAND TUG AND BARGE, LIMITED, SCHOLARSHIP — One hundred and fifty dollars (\$150) awarded annually to the student leading courses numbered 200 in any two of the following departments: Botany, Chemistry, Geography, Geology, Mathematics, Physics, Zoology. The winner must continue his academic work at an approved university.

\*FREEMAN F. KING SCHOLARSHIP — Two hundred and fifty dollars (\$250) awarded to a student entering third or fourth year, preferably the latter, and preparing for a career in natural history, considered in a broad sense. The award is to be based on high academic standing and demonstrated interest in field studies, especially in terrestrial biology. The recipient will be selected from candidates recommended by Biology Department staff members.

KIWANIS SCHOLARSHIP — Two hundred and fifty dollars (\$250) awarded to a man student completing the first year and entering the second year at University of Victoria. Selection of the recipient to be made by the Kiwanis Club of Victoria in conference with the Faculty.

LEON J. LADNER B.C. HISTORY SCHOLARSHIPS — Two scholarships, one hundred dollars (\$100) 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.

THE LADY LAURIER CLUB SCHOLARSHIP — One hundred dollars (\$100) 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.

LIONS CLUB SCHOLARSHIP — One hundred dollars (\$100) awarded annually to the student obtaining the highest standing in Biology 150 and Chemistry 102 or 124, and continuing similar work at the University of Victoria.

\*MARTLET CHAPTER, I.O.D.E. PRIZE FOR SCHOLARSHIP IN HISTORY IN ART — An annual award will be presented for excellence in History in Art. The winner will be selected by the Department of History in Art.

MILLARD H. MOONEY MEMORIAL LIONS CLUB FINE ARTS SCHOLARSHIP — One hundred dollars (\$100) awarded annually to a worthy and talented student registered 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.

THE ANGELINA NORRIS BURSARY — Fifty dollars (\$50) awarded annually to a needy and deserving student of modern languages in his first, second or third year who is returning to the University to complete his studies. Preference will be given to a student of German, at the discretion of the Department.

THE OAK BAY BUSINESS AND PROFESSIONAL WOMEN'S CLUB BURSARY — One hundred dollars (\$100) to be awarded annually to a woman student who attains honours standing in History 350 - History of the Canadian West.

\*Administered by the University of Victoria Foundation.

- OCEAN CEMENT LIMITED, SCHOLARSHIP—One hundred dollars (\$100) awarded annually to the student in first year who obtains the highest standing in Chemistry and who intends to continue studies at the University of Victoria or at any other university.
- ESTHER PEARCE MEMORIAL PRIZE—Fifty dollars (\$50) awarded annually by Chapter N. P.E.O. Sisterhood, to a woman student in first year for excellence in English.
- \*THE ALAN PRATT MEMORIAL SCHOLARSHIP—One hundred dollars (\$100) awarded annually to a student with broad interests completing second year.
- THE PRESIDENT'S SCHOLARSHIPS—A number of scholarships up to the value of \$500.00 each will be awarded annually by the President upon the advice of the Committee on Awards. Awards will be made in Arts, Sciences, Social Sciences, Fine Arts, and Education, on the basis of distinction in scholarship. In making the awards, the President and the Committee will take into account any other scholarships candidates have received. Award winners must return to the University of Victoria in the next regular session and must enrol in a full programme in order to retain the award.
- THE PROFESSIONAL MEN'S GARDEN CLUB OF VICTORIA SCHOLARSHIP—One hundred dollars (\$100) 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.
- THE READ JONES CHRISTOFFERSEN LTD., CONSULTING ENGINEERS SCHOLARSHIP—Two hundred dollars (\$200) awarded annually to a deserving and promising student of the University of Victoria who is continuing studies at the University of Victoria.
- RITHEI CONSOLIDATED LIMITED BURSARY—One hundred dollars (\$100) to be offered to a promising student registered at the University of Victoria and continuing academic studies.
- THE ROTARY CLUB OF DOUGLAS (VICTORIA) SCHOLARSHIP—One hundred dollars (\$100) 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.
- ROTARY CLUB OF VICTORIA SCHOLARSHIP—Two hundred and fifty dollars (\$250) to be awarded to the student taking the highest standing in first year English.
- \*ROYAL INSTITUTION AND FRANK EATON MEMORIAL SCHOLARSHIP—Fifty dollars (\$50) awarded to the student taking the highest standing in English of the second year.
- THE MADAME SANDERSON MEMORIAL SCHOLARSHIP—Fifty dollars (\$50) offered annually to a promising student for excellence in English and French of the second year.
- \*THE EDWARD J. SAVANNAH MEMORIAL SCHOLARSHIP—One hundred and fifty dollars (\$150), subscribed by his friends and former students, to be awarded annually to a student proceeding to third year science at the University of Victoria or elsewhere.
- SEAFORTH HIGHLANDERS OF CANADA SCHOLARSHIP—Two hundred dollars (\$200) awarded to a student attaining the highest standing in the study of a third or fourth year Military History course. The selection will be made by the Department of History.
- \*THE NORA LUGRIN SHAW MEMORIAL SCHOLARSHIP—Sixty dollars (\$60) 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
- \*Administered by the University of Victoria Foundation.

the Fountainhead of Constitutional Liberties. The award is to be made on the recommendation of the Department of History.

**THE ANDREW SHERET, LTD. SCHOLARSHIP**—One hundred and fifty dollars (\$150) to be awarded annually to a student achieving high academic standing and who is continuing studies at the University of Victoria.

**THE A. W. SHERET SCHOLARSHIP**—One hundred and fifty dollars (\$150) awarded annually to a promising student with high academic standing who is continuing studies at the University of Victoria.

**SPECIAL SCHOLARSHIPS IN BIOLOGY**—A number of scholarships are available to students enrolled in courses in the Department of Biology, on the recommendation of the faculty.

**\*THE TAYLOR EDUCATION BURSARY**—An annual award will be made to a fourth year student showing outstanding ability and interest in Education and needing financial assistance. If no qualifying student is enrolled in the fourth year, the bursary may be awarded the next year or be presented to a qualified student 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.

**\*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 Department 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.

**UNIVERSITY EXTENSION ASSOCIATION OF VICTORIA SCHOLARSHIP**—One hundred and fifty dollars (\$150) to be awarded to a worthy and promising student who is returning to the University in the following year.

**THE UNIVERSITY OF VICTORIA FACULTY ASSOCIATION SCHOLARSHIP**—Two hundred dollars (\$200) to be awarded annually to further the education of a student of good academic standing.

**UNIVERSITY WOMEN'S CLUB SCHOLARSHIP**—Two hundred dollars (\$200) 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 Executive of the University Women's Club for approval.

**THE VICTORIA COUNCIL, UNITED COMMERCIAL TRAVELLERS OF AMERICA SCHOLARSHIP**—One hundred dollars (\$100) awarded annually to the leading student of the Humanities in the second year. The winner must continue university studies.

**THE GYRO CLUB OF VICTORIA SCHOLARSHIP**—Two hundred dollars (\$200) awarded annually to a male student completing his first year at the University of Victoria. The recipient is to be selected annually by a committee of the Gyro Club, upon the recommendation of the President of the University, on the basis of qualities of leadership, distinction of mind, and merit in games.

**THE VICTORIA MEDICAL SOCIETY SCHOLARSHIP**—Two hundred and fifty dollars (\$250) 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 scholarship. Selection of the student will be made by the Faculty, and preference will be given to a student studying in the general area of the basic medical sciences.

**VICTORIA MUNICIPAL CHAPTER, I.O.D.E. SCHOLARSHIP**—One hundred dollars (\$100) awarded to an outstanding student in Canadian History in any year.

\*Administered by the University of Victoria Foundation.

VICTORIA NATURAL HISTORY SOCIETY SCHOLARSHIP — Awarded to the most deserving student completing first or second year and specializing in Biology. The award is in the amount of one hundred dollars (\$100) for the academic year 1970-71.

\*THE WEBER MEMORIAL BURSARY — One hundred dollars (\$100) 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.

\*THE WESTAD SCHOLARSHIP — This scholarship of two hundred and fifty dollars (\$250) is awarded annually for general proficiency to a student entering third or fourth year at the University of Victoria.

THE WESTON BAKERIES, LIMITED, SCHOLARSHIP — Two hundred and fifty dollars (\$250) to be awarded annually to a deserving student completing first or second year and continuing University studies.

THE WOODS TRUST SCHOLARSHIPS — Awarded annually to promising students at the University of Victoria who intend to pursue studies as undergraduates at the university or as post-graduate 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 two hundred and fifty dollars (\$250) each.

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 MAY E. WOOTTON MEMORIAL SCHOLARSHIP — One hundred dollars (\$100) to be awarded annually to the student who writes the best term essay in English 200. Selection is to be made by the Department of English.

THE XI NU CHAPTER, BETA SIGMA PHI SORORITY ANNUAL BURSARY — Twenty-five dollars (\$25) 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.

YORKSHIRE TRUST COMPANY SCHOLARSHIP — One hundred and seventy-five dollars (\$175) awarded annually to the outstanding student in Commerce 151 who plans to continue University studies leading to a B.Com. degree.

THE ROSALIND W. YOUNG SCHOLARSHIP — Two hundred dollars (\$200) to be awarded annually by the University Women's Club of Victoria to the leading woman in first year Education who is continuing University studies.

\*Administered by the University of Victoria Foundation.

## PRIZES

The following prizes are awarded annually to students for distinguished accomplishment.

**ADELPHI BOOK SHOP PRIZE** — Donated to a first class student who has completed two years in the Faculty of Education.

**ALLIANCE FRANCAISE BOOK PRIZE** — A book prize awarded to the student in second year who has made the most progress in French and who intends to continue university work in this subject.

**AUSTRIAN GOVERNMENT BOOK PRIZES** — The Austrian Consulate awards book prizes to students in each undergraduate year showing proficiency in German Studies.

**THE BEAVER BOOKS SHOP PRIZE** — Donated to the student who stands first in the final examination in English 120.

**BIRKS GOLD WATCH** — Offered by Henry Birks & Sons (B.C.) Ltd., of Victoria, and awarded annually to a first-class student who has made a valuable contribution to student life.

**B.C. HISTORICAL ASSOCIATION BOOK PRIZE** — Two prizes awarded to students attaining the highest marks in History 350 (History of the Canadian West).

**THE B.C. PSYCHOLOGICAL ASSOCIATION GOLD MEDAL** — Awarded annually to a graduating student in the Honours Psychology programme who has demonstrated outstanding achievement in the study of Psychology.

\***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.

\***GWEN DOWNES MEMORIAL BOOK PRIZE** — Awarded to the student who gives the best performance in a university play.

**FRANCIS GOLD WRIST WATCH** — To be presented each year by F. W. Francis, Ltd. to the student obtaining the highest average on the Sessional Examinations, with the provision that no student win it more than once.

**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.

**FRENCH GOVERNMENT MEDAL** — Awarded for excellence in French.

**GOVERNMENT OF THE FEDERAL REPUBLIC OF GERMANY** — These book prizes, the gift of the Federal Republic of Germany through the Consulate in Vancouver, are available for students in each undergraduate year showing proficiency in German studies.

**THE GROLIER LIMITED AWARD** — A set of the New Book of Knowledge will be given to the outstanding graduating student in the Faculty of Education. Selection will be made by the Senate Committee on Awards in June.

\***CUTHBERT HOLMES BOOK PRIZE** — Through the generosity of the Martlet Chapter I.O.D.E. a Book Prize to the value of seventy-five dollars (\$75) will be awarded annually to the student who has written the best English Honours Graduating Essay. The winner will be selected by the Department of English.

**THE OPEN DOOR SOCIETY BOOK PRIZE** — Awarded annually to the student in the Third or Fourth year of the programme leading to the Bachelor of Arts with Major in Social Welfare who writes the best essay on the subject of placing children of interracial parentage in adoption.

**ROSE'S LIMITED JEWELERS WATCH** — To be awarded annually to the leading student in the Faculty of Education at the University of Victoria.

\*Administered by the University of Victoria Foundation.

THE SPANISH GOVERNMENT BOOK PRIZE — Awarded to the best student in a senior Spanish course. Selection to be made by the Spanish Department.

\*THE ROBERT LORNE STANFIELD BOOK PRIZES IN POLITICAL SCIENCE — To be awarded annually to the top two students in each of Political Science 200 (Introduction to Political Science) and Political Science 410 (The Government of Canada).

THE PRIZES OF THE AMBASSADOR OF SWITZERLAND TO CANADA — These book prizes will be awarded to an outstanding student of French language and literature and to a student with high standing in German.

\*THE VICTORIA BRANCH OF NATIONAL COUNCIL OF JEWISH WOMEN BOOK PRIZE — A prize will be given to the best student taking Sociology 335 (Minority and Ethnic Group Relations). The winner will be selected by the Department of Anthropology and Sociology.

\*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 Department of Slavonic and Oriental Studies.

\*Administered by the University of Victoria Foundation.

## SECTION 5

### UNDERGRADUATE AWARDS FOR WHICH APPLICATION MUST BE MADE AT THE UNIVERSITY OF VICTORIA

These awards are open only to students who attended the University of Victoria in the 1969-70 regular session. Application for these awards must be made before April 30, unless otherwise indicated, on forms available in the Financial Aid Office.

**ALCAN SCHOLARSHIP**—Granted annually on the basis of financial need, character, and ability. The scholarship has a value of five hundred dollars (\$500) and is supplemented by a grant of three hundred dollars (\$300) to the University. The Scholarship is open to students in Honours or Science Major programmes in Chemistry, Mathematics, Metallurgy and Physics, or students in courses leading to a degree in Engineering. The recipient of the scholarship may apply for it in the following year and will be considered on equal basis with the other students. The recipient is in no way bound to enter the donor's employ nor is the donor committed in any way to find employment for the student after graduation.

**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 available to students recommended by the University for any course leading to a degree in Dentistry, Law, Library Science, Medicine, or Social Work, as well as any undergraduate course. The Bursaries may be renewed annually to a successful student until graduation. The number and amount of such awards may vary annually, depending upon the funds available for the purpose from The Foundation.

Candidates for the Bursaries must apply to the University on the University's General Application Form not later than April 30.

The University will make the award of the Bursaries in consultation with The Foundation.

**CANADIAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION AND RECREATION, INC. (GREATER VICTORIA BRANCH)**—One hundred dollars (\$100) to be awarded annually to a student who has completed first year and is proceeding to either a B.Ed. degree with a Major in P.E. or to a B.P.E. degree. Applicants should further demonstrate a need for assistance, and show evidence of a particular interest and aptitude in P.E. and general proficiency in academic work. Selection of candidates is to be made by the C.A.H.P.E.R. Scholarship Committee on the basis of applications submitted to the Committee on Awards of the University before September 25 in each academic year.

**THE CANADIAN CANCER SOCIETY, BRITISH COLUMBIA DIVISION BURSARY**—This bursary of five hundred dollars (\$500), the gift of the Canadian Cancer Society, British Columbia Division, will be available for a worthy and deserving student who is a bona fide pre-medical student, or who will have already completed the pre-medical stage of his training and will be entering medical school. To be eligible for this award an applicant must be a graduate of a secondary school in British Columbia. Those students who are assisted, although not required to undertake a legal obligation, are asked to assume a moral responsibility to reimburse the fund after completion of their medical studies. Application must be made before August 1 on forms available in the Financial Aid Office.

**THE CANADIAN UNION OF PUBLIC EMPLOYEES SCHOLARSHIPS**—C.U.P.E. will make available the sum of five hundred dollars (\$500) to provide scholarships for two deserving and promising students at the University of Victoria who are continuing their studies here. The selection will be made on the basis of academic standing. Preference will be given to the sons or daughters of members of the C.U.P.E. In each case, the student must make application for these scholarships.

**THE ARTHUR S. DENNY SCHOLARSHIP** — One hundred dollars (\$100) awarded annually by the Standard Furniture Company to a deserving student in any year with a good academic record who is continuing studies at the University of Victoria. Apply before April 30 to Committee on Awards.

**THE IBM-THOMAS J. WATSON MEMORIAL BURSARY PROGRAMME** — IBM makes available \$1,000 annually to the University of Victoria and to other universities to provide undergraduate bursaries known as the IBM-THOMAS J. Watson Memorial Bursary Programme. The objective of the programme is to provide financial assistance to needy undergraduates in any year of any faculty who have good academic standing. These bursaries may be held concurrently with other awards, provided the University is satisfied that a need exists. Apply to the Committee on Awards, University of Victoria.

**ROBERT H. B. KER SCHOLARSHIP** — One hundred and fifty dollars (\$150) awarded to a student in the first year who is proceeding to the second year either at the University of Victoria or a Canadian university. The applicant must have been a cadet (Sea, Army or Air) for at least two years during his last three years of high school. If there be no such applicant, the Committee on Awards may recommend for the award a student who has satisfactorily completed first or second year at the University of Victoria and is enrolled for service in one of the University training units. Application must be accompanied by a certificate from the Cadet unit concerned. Selection of the winner is to be made by Faculty in consultation with the donor, Mr. R. H. B. Ker.

**THE LADIES PHARMACEUTICAL AUXILIARY (VICTORIA) BURSARY** — A Bursary of fifty dollars (\$50), available annually to a first year Vancouver Island Science student continuing studies at the University of Victoria, or the University of British Columbia. Preference will be given to a student planning to take Pharmacy as a profession. The award is to be made by the Committee on Awards of the University of Victoria.

**THE BENNY NICHOLAS MEMORIAL AWARD** — One hundred dollars (\$100) presented annually by the Victoria *Daily Times* to the student who submits the best piece of original writing, such as an essay, poem, play, article or other entry, to a selection committee appointed by the Committee on Awards. Entries may be submitted after January 1, but no later than March 31, to the Financial Aid Officer, Admissions Office.

**PACIFIC COAST FISHERMEN'S MUTUAL MARINE INSURANCE COMPANY BURSARY** — A bursary of four hundred and fifty dollars (\$450) is offered by Pacific Coast Fishermen's Mutual Marine Insurance 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 HON. AND MRS. G. R. PEARKES PRIZE** — Fifty dollars (\$50) to be awarded annually by the Hon. and Mrs. Pearkes to the student who has taken Service Training and has highest academic standing among those returning to the University of Victoria.

**\*THE OLIVER PRENTICE MEMORIAL — DOUGLAS ROTARY SCHOLARSHIP** — 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 articulated 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 ROYAL CANADIAN LEGION (VICTORIA, B.C.) SIR PERCY LAKE MEMORIAL SCHOLARSHIP** — Three hundred dollars (\$300) to be awarded annually to a worthy student on the recommendation of the Faculty. To be eligible a student must be a veteran of World War II, or a son or daughter of a veteran of World War II or World War I, or the wife or widow of a veteran of World War II, and must continue his or her studies.

\*Administered by the University of Victoria Foundation.

UNITED NATIONS ASSOCIATION (VICTORIA BRANCH) SCHOLARSHIP—  
Two hundred and fifty dollars (\$250) awarded annually to a student entering third or fourth year with a high academic standing and demonstrated interest in the work of the United Nations or its agencies or in international relations.

THE VICTORIA MEDICAL SOCIETY SCHOLARSHIP II — Five hundred dollars (\$500) 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 in June by a committee consisting of representatives from 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 June. The award will be forfeited if the candidate has not entered medical school by January 1971, at the latest. Application forms are available from the Financial Aid Office and must be returned to the Financial Aid Officer before April 30.

VICTORIA MUNICIPAL CHAPTER IMPERIAL ORDER OF THE DAUGHTERS OF THE EMPIRE SCHOLARSHIP — One hundred dollars (\$100) awarded annually to a first year student who is the child of a veteran of World War I or World War II. The recipient of the Scholarship must be recommended for general proficiency and worth by the Faculty, and must continue university work into the second year.

## SECTION 6

### ENTRANCE AWARDS ADMINISTERED BY THE SCHOLARSHIP AND BURSARY COMMITTEE, ROOM 207, BUCHANAN BUILDING, UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER 8, B.C.

Students who submit applications for scholarships or bursaries 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.

#### 1. Scholarships which must be applied for by May 15.

**THE INTERNATIONAL LONGSHOREMEN'S AND WAREHOUSEMEN'S UNION UNDERGRADUATE SCHOLARSHIPS** — Four scholarships of \$250 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, or Simon Fraser University who will continue in a full programme of studies in the next session in an undergraduate faculty. These scholarships will normally be awarded to the candidates with highest standing as determined by the results of the Final Sessional Examinations conducted in April by the named universities. Candidates must notify the Scholarship and Bursary Committee, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. by May 1 of their intention of competing. 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 DR. H. B. KING MEMORIAL SCHOLARSHIP IN EDUCATION** — This scholarship of \$150 has been established by the B.C. Association of District Superintendents and Inspectors of Schools as a memorial to Dr. H. B. King, who from 1939 to 1945 was Chief Inspector of Schools for British Columbia. For many years prior to 1939 Dr. King also served the Province of British Columbia with distinction and devotion as a teacher and principal, and as a technical adviser with the Department of Education. This scholarship will be awarded to a student who is proceeding to a degree or certificate in the teaching field and is taking a full course in the **second year** in the Faculty of Education, University of Victoria or University of British Columbia. The award will be made on the basis of academic standing, personal qualities, interest and participation in school and community affairs, aptitude for teaching, and other factors. Applications, on forms obtainable from the Scholarship and Bursary Committee, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C., must be submitted to the University not later than May 15.

#### 2. Bursaries which must be applied for by July 15.

**BRITISH COLUMBIA FOREST PRODUCTS LIMITED BURSARIES** — Bursaries to a total of \$5,500, each with a maximum value of \$300, are offered by British Columbia Forest Products Limited to sons and daughters 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 and whose earnings are limited (see Company brochure for details). They are open to students beginning or continuing studies in the fall in a full undergraduate programme of studies at the University of British Columbia or the University of Victoria. Awards will be made to students selected on the basis of their academic standing and need for financial assistance. No award will normally be made, however, to a candidate who obtains an overall average of less than C+ or who is required to write supplementals to obtain clear standing in a full year's work. Winners of the Company's Entrance Scholarships will not be permitted to receive a Company Bursary in the same year. All candidates must apply on the Special Bursary form, which may be obtained from the

Scholarship and Bursary Committee, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. This application must be received by the University of British Columbia not later than July 15 and must contain the necessary details of family service with the Company. An official transcript of academic record at the institution most recently attended must be forwarded as soon as possible.

**THE GRAND LODGE MASONIC BURSARIES** — The Grand Lodge of Antient Free and Accepted Masons of British Columbia annually offers bursaries in the range of \$200 to \$500 each with preference to the sons, daughters, and legal wards of active members of Masonic Lodges in British Columbia or of deceased members who, at the time of death, were active members of these Lodges. The purpose of these bursaries is to give assistance to students who, without financial aid, would find it impossible or difficult to continue their education. Selection of winners will be made by the University of British Columbia from applicants with satisfactory academic standing who are entering the first or second year of undergraduate studies at the University of British Columbia or the University of Victoria in a full programme leading to a degree in any field. First preference will be given to applicants entering university from Grades XII and XIII. In order to be considered, a candidate must obtain from the office of the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C., a Special Bursary Application form. The completed application must be received at the University of British Columbia not later than July 15. If the applicant is the son, daughter, or legal ward of a member of the Lodge the application must be accompanied by a letter from the Secretary of the Lodge giving the name and address and details of the lodge with which the applicant's immediate family is or has been associated. Since a special committee considers these awards, a student applying for other bursaries must submit a separate application for them.

**THE GLADYS LEDINGHAM AWARD** — A cash award of \$75, gift of the Victoria and District Parent-Teacher Council, is offered to students who have graduated from 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, University of British Columbia, who has been accepted for the Bachelor of Library Science degree. The winner will be selected on the basis of need and scholastic ability. Applications, on forms obtainable from the Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C., should be made on the University Bursary Form by July 15.

### **UNDERGRADUATE AWARDS ADMINISTERED BY OTHER INSTITUTIONS AND ORGANIZATIONS**

**ASSOCIATION FOR RETARDED CHILDREN OF BRITISH COLUMBIA BURSARIES** — Bursaries in various amounts are offered by the Association for Retarded Children of British Columbia to students in education, medicine, nursing, psychology, and social work in graduate or undergraduate programmes who: (a) are undertaking a full year, part-time or summer school course at a recognized University or College, and (b) intend to pursue studies related to mental retardation. Awards will be made on the basis of combined academic standing and need. Closing dates for submission of application forms are July 15 and December 15. Forms of application may be obtained from: Association for Retarded Children of British Columbia, Room 221, 119 West Pender Street, Vancouver 3, B.C.

**THE BAY SERVICE AWARD** — A two-year Service Award offered by the Bay (Victoria) is open in competition to students completing Second 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, aptitude, and personality, and should be considering possible employment with the Bay on graduation. Under the terms of the award whereby tuition fees will be paid and employment with the Bay guaranteed during Christmas and Summer vacations and at other times such as Saturdays, one of these plans will be followed: (a) For a Second Year Arts student tuition will be paid for third and fourth years toward successful completion of the

B.A. degree at the University of Victoria; (b) For a student completing first year Commerce, tuition fees will be paid for second and third year Commerce at U.B.C., with a possible continuation, or renewal of award for final year Commerce studies toward successful completion of Bachelor of Commerce degree. Subject to satisfactory performance, a winner will, on graduation, be given an opportunity 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, fathers, mothers, sisters, brothers, sons, daughters, grandchildren or step-children of members of the Order of the Eastern Star of B.C. Applications should be sent to the local Eastern Star secretary by July 15.

**THE INDEPENDENT ORDER OF ODDFELLOWS BURSARIES** — Six bursaries of \$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 Oddfellows Lodge or Rebekah Lodge, I.O.O.F. Applications should be submitted to the Oddfellows 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 Oddfellows 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 procedure as for all other I.O.O.F. bursaries, except that family connections with the I.O.O.F. will not be required.

**LEONARD FOUNDATION SCHOLARSHIPS** — This National Foundation awards each year a number of scholarships for which students of the University of Victoria are eligible. Application forms and further information may be secured from Professor C. W. J. Eliot, University of British Columbia. These forms should be forwarded to the Honorary Secretary of the Foundation, c/o Canada Permanent Trust Co., 253 Bay Street, Toronto, 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.

**THE MERRILL C. ROBINSON BURSARY** — One thousand dollars (\$1000) provided by the Canadian National Institute for the Blind, British Columbia Division, to be awarded annually to assist a blind student attending the University of Victoria, Simon Fraser University, or University of Notre Dame at Nelson, in graduate or undergraduate studies. Applications are to be directed to the Bursary Committee, Canadian National Institute for the Blind, British Columbia Division, 350 East 36th Avenue, Vancouver 15, B.C., before July 31.

**NAVAL OFFICERS' ASSOCIATION OF BRITISH COLUMBIA BURSARY LOANS** — Several bursary loans not exceeding \$300 each are offered to students beginning or continuing studies at the University of British Columbia, or the University of Victoria, with the intention either of following a permanent career in the Royal Canadian Navy or following a course of study which, coupled with such person's past associations, will qualify such person as potential personnel for the Royal Canadian Navy in times of national emergency. Preference will be given to present or former members of a cadet force, of a reserve force or of the permanent force, or the sons or daughters of any Commissioned Officer, Warrant Officer, Rating or man who has served or is now serving in the British Commonwealth naval forces or Merchant navies. Awards will be made on the basis of combined academic standing and need. These loans are repayable without interest within eighteen months after graduation. If by the due date the student has joined the permanent force, the loan may be cancelled in its entirety; if he has

joined the reserve force 50% of it may be cancelled. Applications should be filed not later than October 1 with the Naval Officers' Association of British Columbia, Box 823, Station A, Vancouver, B.C.

**NAVAL OFFICERS' ASSOCIATION OF BRITISH COLUMBIA SCHOLARSHIPS** — Several scholarships in amounts up to \$250 each, provided by the Naval Officers' Association of British Columbia, are offered to students beginning or continuing studies at the University of British Columbia or the University of Victoria with the intention either of following a permanent career in the Royal Canadian Navy or following a course of study which, coupled with such person's past association, will qualify such person as potential personnel for the Royal Canadian Navy in times of national emergency. Preference will be given to present or former member of a cadet force, of a reserve force or of the permanent force, or the sons or daughters of any Commissioned Officer, Warrant Officer, Rating or man who has served or is now serving in the British Commonwealth naval forces or Merchant navies. Awards will be made on the basis of all-round proficiency in the combination of academic studies and present or former interest in or association with a cadet force, reserve force or permanent force. Application should be filed not later than October 15 with the Naval Officers' Association of British Columbia, Box 823, Station A, Vancouver, B.C. Winners of these awards are not precluded from accepting other awards which they may be offered.

**NORTHERN ELECTRIC EMPLOYEE BURSARIES** — The Northern Electric Company Limited has provided for a number of bursaries to an annual maximum value of \$500 each to assist employees of the Company and their dependents to obtain a university education. The recipients must have completed previously one year of undergraduate studies at a recognized university. Application forms obtainable from the Company should be submitted directly to the Northern Electric Bursary Award Committee, Dept. 107, P.O. Box 6123, Montreal, P.Q. before June 30.

**THE RHODES SCHOLARSHIPS** — The Rhodes Trustees offer annually for award in the Province of British Columbia one Rhodes Scholarship of the value of approximately £1100 per annum. This stipend consists of a direct payment to the University and the Scholar's College of approved fees plus a maintenance allowance of £720 per annum 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 cost of the voyage to and from England must be borne by the Scholar.

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 male Canadian citizen or British subject and have been ordinarily resident in Canada for at least five years by October 1, 1970. 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 his stipend if he is able to give appropriate assurance of support and accommodation for his wife.

A candidate must be at least 19 but under 25 years of age on October 1, 1971.

He must have completed two years of university study by October 1, 1971.

A candidate may complete 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 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 manhood, 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 in moral courage and in 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, 1970, and if elected, to go to Oxford in October 1971. Further information concerning the Scholarship and the opportunities for study at Oxford University may be obtained from Michael J. Brown, 804 - 470 Granville Street, Vancouver 2, B.C.

**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 1970-71 Scholarship must be: unmarried; between the ages of 18 and 24 inclusive as of July 1, 1970; and have completed two years of undergraduate university-level work but not have attained the bachelor's degree or equivalent at the time that 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 programmes of the Rotary Foundation, a Rotarian, a dependent of a Rotarian, a child, 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 academic credit for courses taken or work completed during the year abroad.

Application 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 15.

**THE SONS OF NORWAY SCHOLARSHIPS** — District Lodge No. 7 — Sons of Norway offer three scholarships of \$300 each to students attending a university in British Columbia and proceeding to the second final or the final year of a full programme leading to a degree. To be eligible a candidate must be a member of a British Columbia Sons of Norway Lodge. Application must be by letter, addressed to the Sons of Norway Scholarship Committee, c/o: The Scholarship and Bursary Office, Room 207, Buchanan Building, University of British Columbia, Vancouver 8, B.C. The letter of application must (1) indicate the applicant's eligibility with respect to membership above, together with a receipt from the secretary of the Lodge concerned; (2) give details of the applicant's course of study, reason for applying, and future plans for a career; (3) be accompanied

by official transcripts of the applicant's high school and university records. The applicant must also arrange for one or more confidential testimonials to be forwarded preferably from faculty members acquainted with the applicant's character and personal qualities, interest, and ability as a student. Applications must be submitted by August 1. Successful applicants will be chosen by a special Committee.

**UNIVERSITY WOMEN'S CLUB OF VICTORIA DIAMOND JUBILEE BURSARY** — A bursary of \$100 will be awarded annually by the University Women's Club of Victoria, to a mature woman with a satisfactory academic standing, who, without financial aid, would find it difficult to resume her studies. The applicant should be returning to full-time or part-time studies at the University of Victoria or the Institute of Adult Studies. A letter of application, with two references, should include a brief explanation of how the proposed courses will improve the applicant's qualifications for employment. Applications should be filed not later than August 20 with the Financial Aid Officer, University of Victoria, Victoria, B.C.

**VANCOUVER FOUNDATION** — Educational aid is offered through the Vancouver Foundation to a limited number of deserving students at institutions of higher learning in British Columbia. Applications will be judged on the basis of (a) academic standing; (b) contributions to the university, school or community; (c) financial need which cannot be satisfied through the usual avenues. Further information may be obtained by writing to the Executive Director, Vancouver Foundation, 1105 West Pender Street, Vancouver 1, B.C. Inquiries must be made before March 31.

**THE WESTMINSTER REGIMENT ASSOCIATION SCHOLARSHIP** — This scholarship of \$500, the gift of the Westminster Regiment Association, will be awarded annually to a worthy and deserving student who is continuing his or her 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 Westminster Regiment Association, or a member of the Westminster Regiment CA(M) or one of those battalions which the Westminster Regiment perpetuates, i.e., the 47th, 104th or 131st. The applicant may be in his or her 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 Westminster Regiment Association, Box 854, New Westminster, B.C. The cut-off date for applications is June 30.

**THE WOMAN'S INSTITUTE MEMORIAL SCHOLARSHIP** — 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 been in good standing for at least three years. Preference is given to a student registering at any 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 any 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 7

### AWARDS FOR GRADUATE STUDY

#### AWARDS ADMINISTERED BY THE UNIVERSITY OF VICTORIA

##### UNIVERSITY OF VICTORIA FELLOWSHIPS:

University of Victoria Fellowships of \$2,500, September through April, may be awarded by the Faculty of Graduate Studies to students of high academic standing registered full time as candidates or provisional candidates for a degree in the Faculty. Upon recommendation of the Department concerned, these Fellowships will be accompanied by a Summer Supplement of \$1,000, May through August, inclusive, for students working full time on their studies during that period. No duties are attached to these Fellowships and Supplements, which will be paid in equal instalments. Application should be made at the time of application for admission. (The deadline for Fellowship and Scholarship applications is February 20. Successful candidates will be notified by March 31.)

NOTE 1: Fellowship holders may not normally hold another major award, i.e. more than \$600.

NOTE 2: Fellowship holders, at their discretion, may accept paid employment within the University, provided that this does not exceed 100 hours in the September to April session.

##### UNIVERSITY OF VICTORIA GRADUATE SCHOLARSHIPS:

University of Victoria Graduate Scholarships of \$1,000, September through April, may be awarded by the Faculty of Graduate Studies to students of good academic standing registered full time as candidates or provisional candidates for a degree in the Faculty of Graduate Studies. Application should be made at the time of application for admission. No duties are attached to these Scholarships. Scholarship holders may accept paid employment of not more than 300 hours, September through April.

THE LEON J. LADNER B.C. HISTORY SCHOLARSHIP— Three hundred dollars (\$300) awarded annually for the best graduate thesis on the History of British Columbia.

## SECTION 8

### LOAN FUNDS

Inquiries relating to the following loan funds, and all applications for loans, should be addressed to the Financial Aid Officer, Admissions Office, unless the description indicates otherwise.

Applications for Canada Student Loans should be made in advance of the opening of the session. Although loans in limited amounts may also be made during the session, provided funds are available, students should not begin attendance on the assumption that they will be eligible for or receive assistance. In particular, they must meet the requirements specified in the terms of the loan fund involved.

University Loans are not normally made to students until they have registered at the University for a full winter session.

Students are also advised that adult guarantors satisfactory to the Financial Aid Officer are required for loans administered by the University.

**B.C. Youth Foundation Loans** — Loans are available to young persons up to 30 years of age. The foundation loans money to pay fees and/or monthly amounts to assist with living expenses. Applicants should contact the Financial Aid Officer, Admissions Office, for further information.

**Canada Student Loans Plan** — This plan was introduced by the Federal Government as a broad programme to assist students who, in the absence of a loan, would be unable to pursue full-time post-secondary studies at a university or other educational institution. Canada Student Loans, available only on the basis of certificates of eligibility issued by the appropriate authority (issuing agency) for a province, may be made by any branch of the chartered banks and by certain designated credit unions with the guarantee of the Federal Government. Applications for certificates of eligibility must be made to provinces participating in the plan, and decisions on individual applications are made by the Provincial appropriate authority (issuing agencies). Students applying for certificates who meet residence and other requirements must also demonstrate that the financial means available to them from all other sources are insufficient so that a guaranteed loan is needed. In no case will a loan for an academic year exceed a maximum of \$1,000 or total loans exceed \$5,000 during a student's academic career. Provincial authorities may issue certificates of eligibility under the plan up to the limits of provincial allocations in each loan year. Borrowers under the plan are required to repay principal and pay interest, but no payments are required as long as they are full-time students at a specified post-secondary educational institution and for six months thereafter; interest during this period is paid by the Federal Government on behalf of the student. After a student's interest-free period has expired he is required to make regular monthly payments which include repayment of principal and interest on the outstanding balance at the rate that is in effect for student loans at the time the loan is negotiated. The number of years over which a loan may be repaid depends on the loan amount and other considerations but may not exceed ten years from graduation. A student should apply for a loan under this plan only for the funds needed to enable him to continue his studies and in doing so he should give responsible consideration to the repayment obligations he is assuming; a student who actually borrowed the maximum of \$5,000 would, for instance, be obligating himself to pay, after the expiry of his interest-free period, about \$65.00 each month until ten years after he leaves university. A student in need of a Canada Student Loan should, as a first step, obtain an application form and further information from the appropriate authority (issuing agency) of his province. **Students proposing to attend the University of Victoria should apply to the Financial Aid Officer, Admissions Office, University of Victoria, Victoria, B.C.**

**P.E.O. Sisterhood Educational Loan Fund** — Loans are available to women students in any year of a University course, and may be requested at any time. Maximum amount of a loan to any student is \$1,250. Fourth year or graduate students may be granted loans and draw the maximum loan in one year. Undergraduates may apply for and be granted the maximum loan of \$1,250 for two or more years of study but may draw only \$625 of the loan in one academic year. Freshmen must complete one term's work satisfactorily before making application. Loans are made for periods up

to five years. Interest at the rate of 4% is to be paid annually, and the student is expected to begin payment of the principal as soon as she is out of University and employed. Information may be obtained from Mrs. J. R. Meredith, 2452 Esplanade, Victoria, B.C.

**The University of Victoria Rotating Loan Fund** — The University of Victoria has a small loan fund to assist students requiring financial assistance. This fund is intended to meet emergency situations, and not tuition costs. The loans are interest free and are repayable during the summer following the academic year. Adult guarantors are required to co-sign all short-term loans.

Contributions to the University loan fund have been made through the generosity of the following donors:

The Peter Kubis Memorial Fund (Donated by the University of Victoria Alma Mater Society) .....	\$9,000
The University of Victoria President's Fund .....	7,500
The University of Victoria Alumni Association .....	3,000
The Milva Reid Revolving Loan Fund .....	500
The University Extension Association Centennial Loan Fund ....	400

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 this fund or by establishing similar funds.

For further information regarding interviews and application forms, please consult the Financial Aid Officer, Admissions Office.



*Matthew Cowan Annual Scholarship of \$150 .....	Maria Margareta Anderson
Credit Granters' Association of Victoria Scholarship of \$250 .....	Kelly Alexandra Mary McRae
*The Adeline Julienne Deloume Memorial Scholarships of \$250 each .....	Richard George Hodgson Gwenyth Louise L'Hirondelle
of \$200 each .....	Julia Rae Goodwin Robin Lauraine Paterson Ralph William Sarkonak
of \$100 each .....	Michael Clement Brock Julia Helene Cross Roy Richard McVie Diane Marie Murdoch Patricia Jane Robinson Penelope Jean Shaw
of \$50 each .....	Arlene Rose Alexandrovich Judith Louise Harold Lily Wei-Line Low Jean Mallory Miller
The Arthur S. Denny Scholarship of \$100 .....	Arlene Rose Alexandrovich
Department of English Prize of \$50 .....	No award this year
*The Harold M. Diggon Memorial Bursary of \$200 .....	Cedric Albert Zala
T. Eaton Company (Canada)Ltd. Scholarship of \$200 .....	James Harry Alexander
Percy H. Elliott Memorial Scholarship of \$130 .....	Charlotte Ann Hurford
*The H. O. English Scholarship of \$175 .....	Brenda Lynne Hutton
Faculty Women's Club Prize of \$100 .....	Catherine Joyce Butler
Busaries in Studio / Visual Arts .....	Marjorie Lynne Cushing Bruce Edgar Davies David Richard G. Foster Eric William W. Metcalfe Peter Victor Eyles Paul Douglas Findlay Monica Jane Linnell Richard Alan Steffin Gregory Jack Manning
Grolier Limited Award .....	Anne Kemp
Gyro Club of Victoria Scholarship of \$200 .....	Robert Paul McDougall
*The George Hamilton Harman Memorial Scholarship of \$100 .....	Michael Walter Whybrow
Harbord Insurance Ltd. Scholarship of \$500 .....	Susan Linda Stancombe
*The William A. and Frances E. Harper Scholarship of \$75 .....	Diane Marie Murdoch
The IBM Thomas J. Watson Memorial Bursaries of \$100 each .....	Geoffrey Nigel Appleby Lewis James Bridgeman Melanie May Crombie Dianne Louise Draper Collin Allen Johnsen Wilfred Gourlay Lund Leon Edward Pavlick Geoffrey Duncan Phillips Delbert Burton Smith Dolores Weir
The Don Ingham Memorial Scholarsip of \$150 .....	Ian Denby Cameron
The Island Tug and Barge Limited Scholarship of \$150 .....	Paul Chow
Island Tug and Barge Limited Indian Scholarship of \$150 .....	Donna Valerie Joe
Robert H. B. Ker Scholarship of \$150 .....	Gerry Allan Mandoli
*Freeman F. King Scholarship of \$250 .....	Sylvia Anne C. Drought

Kiwanis Scholarship of \$250 .....	Richard George Hodgson
Ladies Pharmaceutical Auxiliary (Victoria) Bursary of \$50 .....	James Harry Alexander
Leon J. Ladner B.C. History Scholarship of \$100 .....	Charles Patrick Quinn
Lady Laurier Club Scholarship of \$100 \$50 each .....	Ian Bruce McKinnon William James A. Sparks
Lions Club Scholarship of \$100 .....	Henry James Heggelund
*Sara and Jean McDonald Bursary Fund .....	Treva Kathleen Almond Catherine Ann Plotnikoff Patricia Jane Skidmore Margaret Rose Williams
Millard H. Mooney Memorial Lions Club Fine Arts Scholarship of \$100 .....	Doris-Anne Donna Zapf
Benny Nicholas Memorial Award of \$100 .....	Robert Arnold Gunderson
Angelina Norris Bursary of \$50 .....	Rolf Peter Fassman
Oak Bay Business and Professional Women's Club Bursary of \$100 .....	Carol Mavis Frawley
Ocean Cement Limited Scholarship of \$100 .....	Robert Paul McDougall
Pacific Coast Fishermen's Mutual Marine Insurance Co. Bursary of \$450 .....	No Award this year
Esther Pearce Memorial Prize of \$50 .....	Lily Wei-Line Low
The Honourable and Mrs. G. R. Pearkes Prize of \$50 .....	Wilfred Gourlay Lund
*The Alan Pratt Memorial Scholarship of \$100 .....	Paul Julius Pearlman
*Oliver Prentice Memorial-Douglas Rotary Scholarship .....	Collin Allen Johnsen
The President's Entrance Scholarships of \$500 each .....	Heather Jill Brock Steven Joseph Gergel Terrance Warren Gunderson Melvin Donald Klassen John Charles Sobkowicz
The President's Scholarships	
\$450 each .....	Margaret Leslie Hilton Carol Anne Kuntz Maria Dolores Reventlow
\$350 each .....	Elizabeth Ann Marguerite Bowman Bruce Edgar Davies Brenda Lynne Hutton Gavin Quiney Kathleen Sydney Smethurst
\$300 each .....	Geraldine Anne Bergen Bodo Rudolf Delange Boom Penelope Louise Brown Sheila Jane Gann Donald Arthur Ross
\$250 each .....	Julia Rae Goodwin Mary Arden Humphries Charlotte Ann Hurford Christopher Hans Jackli Lorraine Mainwaring Charles Patrick Quinn Gregory Hancock Roscow Frank Andrew Schroeder Anthony Harald Senyk Maria Squance Susan Elizabeth Walker Richard Allan Wodyga Maria Alexandra Wozniak Barbara Joan Yates Cedric Albert Zala
\$200 each .....	James Harry Alexander

	Maria Margareta Anderson
	Jane Rosamund Lake
	Ian Bruce McKinnon
	Frances Dawn McMahon
	Alke Rabien
	Rose-Marie Elisabeth Silkens
	Sylvia Lynn Warburton
\$150 each .....	James Robert Alexander
	James Robert Bartlett
	Barbara Ellen Brayshaw
	Barbara Mary Buckley
	Catherine Joyce Butler
	Paul Chow
	Ester Miccaela Cryderman
	Patience Anne Doerr
	Jane Oliver Evans
	Sheila Anne Haegert
	Mark Horne
	Lily Wei-Line Low
	Daphne Lynne Mayfield
	John Bruce McKinnon
	Connec Dolores McMurray
	Roy Richard McVie
	John Bradford Mundy
	Diane Marie Murdoch
	James Carter Murdoch
	Robin Lauraine Paterson
	Phyllis Lynn Shipton
	Terrance Arthur Slater
	Carolyn Elaine Steele
	Joan Alethea Mary Wilson
	Wendy Arlene Young
\$100 each .....	Arlene Rose Alexandrovich
	Kent Montgomery Brothers
	Cynthia Faith Graham
	Helen Rae Griffin
	Judith Louise Harold
	Frances Mary Kumorek
	Gwenyth Louise L'Hirondelle
	John Stephen Mathers
	Jean Mallory Miller
	Paul Julius Pearlman
	Julia Mary Roberts
	William James Ashley Sparks
	Dianne Marguerite Trythall
	Barbara Yolande White
\$50 each .....	Richard George Hodgson
	Edward Ridgeway Lord
	Burt Raymond Meek
	Robert Alan Oakley
	Doris-Anne Donna Zapf
The Professional Men's Garden Club of Victoria Scholarship	
of \$100 .....	Dianne Marguerite Trythall
Read Jones Christoffersen Ltd., Consulting Engineers, Scholarship	
of \$200 .....	Bodo Rudolf Lelange Boom
Rithet Consolidated Limited Bursary of \$100 .....	Barbara Mary Buckley
The Rotary Club of Douglas (Victoria) Scholarship	
of \$100 .....	Burt Raymond Meek
The Rotary Club of Victoria Scholarship of \$250 .....	Lily Wei-Line Low
The Royal Canadian Legion (Victoria) Sir Percy Lake Memorial	
Scholarship of \$300 .....	Jean Mallory Miller
*Royal Institution and Frank Eaton Memorial Scholarship	
of \$50 .....	Jeanne Marlene Massey

The Madame Sanderson Memorial Scholarship of \$50 .....	Ralph William Sarkonak
*The Edward J. Savannah Memorial Scholarship of \$150 .....	Maria Margareta Anderson
Seaforth Highlanders of Canada Scholarship of \$200 .....	No Award this year
The Nora Lugrin Shaw Memorial Scholarship of \$60 .....	No Award this year
The Andrew Sheret Ltd. Scholarship of \$150 .....	Leslie Anne Woodland
The A. W. Sheret Scholarship of \$150 .....	Julia Mary Roberts
Special Scholarships in Biology	
of \$150 .....	Penelope Louise Brown
of \$100 .....	Dianne Marguerite Trythall John Stephen Mathers
of \$75 .....	Donald Arthur Ross
of \$50 .....	Heather Louise Heppenstall
United Nations Association (Victoria Branch) Scholarship of \$250 .....	Penelope Jean Shaw
University Extension Association of Victoria Scholarship of \$150 .....	Robin Lauraine Paterson
University of Victoria Faculty Association Scholarship of \$200 .....	Dianne Marguerite Trythall
University Women's Club Scholarship of \$200 .....	Geraldine Anne Bergen
University of Victoria Alumni Scholarship of \$500 .....	Bruce Arthur Fryer
University of Victoria Graduate Studies Awards Fellowships	
R. M. Petrie Memorial Fellowship .....	Don Allan Vandenberg
\$2,500 each .....	Nadhim Mohamed Mustafa Al-Qazzaz Adolf Ceska Betty Jamie Chung Helen Edith Davey Bonita Davis Elisabeth Ann Dixon Maxwell Bruce Fairburn Peter Vaughn Fankboner Carol Mavis Frawley Gerald Richard Guest Linda Jane Halliday Peter Harrison John Allyn Higenbottam John James McFarland Joan Elizabeth McMeiken Michael Woodford Morgan Richard Lorne Morley Sheila Patricia Mosher Jack Ernest Penfold Kang Hoh Phua Michael William Pidgeon Venkitasubramoni Ramaswamy Donald Munroe Smith James Richard Stilborn Helen Pik-Yin Tai Donald William Lacey Tarasoff Johannes Pieter Van Netten Marilyn Santina Vassallo David Aaron Zalinger
Scholarships	
\$1,000 each .....	Thaddeus W. Allen Salim Akhtar Aziz John Alexander Carmichael Thomas Charles Cockburn Barbara Grace Corry David James Crockett John Hamilton Davis

Arnold Glasel  
 Gordon John Glova  
 James Martin Goddard  
 James Colton Haggarty  
 Maureen Haugen  
 John Christopher Heaman  
 Richard Allan William Hoos  
 John Thomas Holts  
 Charles Richard Hunt  
 Jennifer Mary Jones  
 Joseph John Karchesy  
 Nella Patricia Jill Kelly  
 Murray John King  
 Donald Edward Lange  
 Paul Laskarides  
 Chee Mou Lee  
 Chung Ling Lei  
 Jerome Peter Lejeune  
 David Leonard  
 Richard Allan Lord  
 John Edmond McCloskey  
 Martin Robert Murch  
 Thian Chor Ng  
 Daneve Marilyn Nightscales  
 Samuel Ogunade  
 Brian Malcolm Oliver  
 Peter Roger Oliver  
 John Wilson Owen  
 James Robert Reid  
 Robert Wayne Robertson  
 Harold Morton Robinson  
 John Rostron  
 John David Rumsey  
 David Frederick Sawbridge  
 Carol Ann Schneider  
 Robert Dale Seens  
 Gregg Bryan Shoop  
 Bjorn Oddvar Simonsen  
 Chaman Lal Singla  
 Mabel Marie Slater  
 Jan Douglas Edgar Thompson  
 Richard Emil Tschritter  
 David Keith Walker

The Victoria Council, United Commercial Travellers of America  
   Scholarship of \$100 ..... Leslie Anne Woodland  
 The Victoria Medical Society Scholarship I of \$250 ..... Barbara Ellen Brayshaw  
 The Victoria Medical Society Scholarship II of \$500 ..... Gerrard Arthur Vaughan  
 Victoria Municipal Chapter, I.O.D.E. Scholarship for  
   General Proficiency of \$100 ..... Barbara Joan Yates  
 Victoria Municipal Chapter, I.O.D.E. Scholarship in  
   Canadian History of \$100 ..... Lynn Darlene Kempster  
 Victoria Natural History Society Scholarship of \$100 ..... Barbara Ellen Brayshaw  
 Victoria West Parent-Teacher Association Bursary of \$50 ..... Roy Richard McVie  
 \*The Weber Memorial Bursary of \$100 ..... Dianne Marguerite Trythall  
 \*The Westad Scholarship of \$250 ..... Sylvia Lynn Warburton  
 The Weston Bakeries, Limited, Scholarship of \$250 ..... Alke Rabien  
 The Woods Trust Scholarships of \$250 each ..... Kent Montgomery Brothers  
   Daphne Lynne Mayfield  
   Barry Raymond Ruddick  
   Denise Maureen Adele Schuetze  
   Terrance Arthur Slater  
   Barbara Yolande White

The Woodward Stores, Limited, Scholarship of \$250 .....	Paul Chow
May E. Wootton Memorial Scholarship of \$100 .....	Jeanne Marlene Massey
The Xi Nu Chapter, Beta Sigma Phi Sorority, Annual Bursary of \$25 .....	Marion Frances Theres Brown
The Yorkshire Trust Company Scholarship of \$175 .....	Graeme Lennox Taylor Lee (by reversion to Darindranath Charitha Gunesekera)
The Rosalind W. Young Scholarship of \$200 .....	Dolores Weir
Adelphi Book Shop Prize .....	Lorraine Mainwaring
Austrian Government Book Prizes .....	Lothar Bannert Doreen Ruth Callaghan Phillip Edgar Jackson Ian Elliott Mackenzie Robert Alan Oakley Catherine Anne Oliver Irene Sennewald Cedric Albert Zala
Birks Gold Watch .....	Nancy Jean Turner
B.C. Historical Association Book Prizes .....	Charles Patrick Quinn Donald William Lacey Tarasoff
B.C. Psychological Association Gold Medal in Psychology .....	No Award this year
Canadian Institute of International Affairs (Victoria Branch) Book Prize .....	Richard Edward Izard
Dr. Maxwell Cameron Memorial Medal and Prize .....	Bruce Ogilvie Mitchell
*The Denton Memorial Book Prize .....	Carol Anne Kuntz
Gwen Downes Memorial Book Prize .....	James Robert Netherton
Francis Gold Wrist Watch .....	John Phillips
French Government Book Prizes .....	Julia Rae Goodwin Robin Lauraine Paterson
French Government Medal .....	Robert Bruce Dutton
Government of the Federal Republic of Germany Book Prizes .....	Lothar Bannert Doreen Ruth Callaghan Phillip Edgar Jackson Ian Elliot Mackenzie Robert Alan Oakley Catherine Anne Oliver Irene Sennewald Cedric Albert Zala
Governor-General's Medal .....	John Phillips
The Beaver Books Shop Prize .....	Lily Wei-Line Low
Open Door Society Book Prize .....	No Award this year
Rose's Limited Jewelers Watch .....	Bruce Ogilvie Mitchell
Spanish Government Book Prize .....	Maria Dolores Reventlow
*Robert Lorne Stanfield Book Prizes in Political Science	
Political Science 200 .....	Richard Edward Izard Kelly Alexandra Mary Mcrae
Political Science 410 .....	Robert Andrew Mulligan Ilea Jean Tant
G. B. Stark Memorial Slide Rule Prize .....	Patrick Robert Morris
Prize of the Ambassador of Switzerland to Canada .....	Arlene Rose Alexandrovich Dennis Burnie Dorais
*Victoria Branch of National Council of Jewish Women Book Prize .....	No Award this year
Government of British Columbia Scholarships	
The University honours 1,294 students presently enrolled who have received a government scholarship.	

# SUMMER SESSION

*Director:* HUGH E. FARQUHAR, M.A., Ph.D.

The announcement of the courses to be offered in the Summer Session (approximately seven weeks in length) will be issued in the Spring and will be available on request from the Director of Summer Session.

The regulations governing the Summer Session are as follows:

1. The maximum credit for Summer Session work in any one calendar year is 6 units. Correspondence courses may not be taken concurrently.
2. Students are required to register by the due date published in the Summer Session Supplement to this Calendar. A late registration fee of \$25.00 will be charged when permission to register late is granted.
3. Students who obtained unsatisfactory standing in the last Winter Session attended may not enrol in Summer Session.
4. All new students desiring to obtain credit for courses completed in the Summer Session must submit with their Application for Admission official transcripts of their matriculation standing and any university work completed elsewhere. In the case of teachers, official transcripts of their professional training are also required.
5. Students are expected to attend regularly the classes in a course for which they register. A student who neglects his academic work, including assignments, may be debarred from final examinations in a course.
6. For statement of fees, see page 59.
7. Summer Session examinations are held at the close of Summer Session.
8. For regulations regarding standing and credit, see page 57.

## UNIVERSITY OF VICTORIA ALUMNI ASSOCIATION


Any student who has completed successfully 15 units of work at Victoria Normal School, Victoria College, or at the University of Victoria, is automatically a member of the Alumni Association.

It is hoped that students will take an active interest in alumni affairs. Further information regarding the activities of the local branch may be obtained from the Secretary, Building "J", University of Victoria. Telephone 477-6911, Local 588.




# UNIVERSITY OF VICTORIA


## LEGEND

 BUILDINGS

 RESERVED PARKING

 STUDENT AND STAFF PARKING

 MOTORCYCLE PARKING

 SIDEWALKS

\* VISITOR METER PARKING AVAILABLE IN LOTS B, C, D, E and 2.

\* PARKING FOR VISITORS AND OTHERS AVAILABLE ADJACENT TO LOT 4.

## KEY TO BUILDINGS

- A. CARPENTER'S SHOP
- B. TRAFFIC AND SECURITY OFFICE, PAINT SHOP
- C. BUILDINGS AND GROUNDS OFFICES
- D. CAMPUS PLANNING OFFICES
- E. FACULTY LOUNGE
- F. INFORMATION OFFICE
- G. COMPUTER SERVICES
- H. COMPUTER SERVICES
- J. OFFICES
- K. OFFICES
- L. CAFETERIA, CLASSROOMS, ADMIN. OFFICES
- M. REGISTRAR, PURCHASING, ACCOUNTING
- N. GRADUATE STUDIES - DEPT OF LINGUISTICS
- O. BACTERIOLOGY AND BIOCHEMISTRY
- P. FIELD HOUSE
- Q. PHOENIX THEATRE
- R. ADMIN. STORES, AUDIO VISUAL
- S. GYMNASIUM
- V. STUDENT PLACEMENT OFFICE
- W. DEVELOPMENT OFFICE

## REGISTRATION FOR 1969-70

### FACULTY OF ARTS AND SCIENCE

	Men	Women	Totals
First Year .....	832	448	1280
Second Year .....	616	290	906
Third Year .....	335	158	493
Fourth Year .....	338	125	463
Unclassified .....	29	20	49
	2150	1041	3191

### FACULTY OF EDUCATION

#### Elementary

First Year .....	40	315	355
Second Year .....	48	254	302
Third Year .....	28	181	209
Fourth Year .....	11	61	72
Fifth Year .....	5	5	10
Internship Programme .....	4	9	13
Diploma Programme .....	17	20	37

	153	845	998
Transfer Programme	35	98	133

#### Secondary

First Year .....	96	67	163
Second Year .....	90	53	143
Third Year .....	52	20	72
Fourth Year .....	22	16	38
Fifth Year .....	30	14	44
Internship Programme .....	16	4	20
Diploma Programme .....	51	21	72
Unclassified .....	8	5	13

	365	200	565
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#### Accelerated Ind. Educ.

First Year .....	17	—	17
Second Year .....	2	—	2
Unclassified .....	1	—	1

	20	—	20
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### FACULTY OF FINE ARTS

First Year .....	38	5	93
Second Year .....	28	44	72
Third Year .....	13	15	28
Fourth Year .....	11	10	21
Unclassified .....	1	1	2

	91	125	216
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### FACULTY OF GRADUATE STUDIES

	193	53	246
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TOTALS .....	3007	2362	5369
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(Statistics compiled December 1, 1969.)

(Source: Registrar's Office.)

### DEGREES CONFERRED MAY 1969

B.A. - 254; B.Sc. - 146; B.Ed. - 118; B.F.A. - 5; B.Mus. - 2; M.A. - 12;  
M.Sc. - 4; Ph.D. - 1; TOTAL - 542.

## ENROLMENT 1964-65 TO 1969-70

### Arts and Science

	1964- 65	1965- 66	1966- 67	1967- 68	1968- 69*	1969- 70*
First Year .....	891	1044	1063	1160	1311	1280
Second Year .....	488	594	694	783	782	906
Third Year .....	228	268	336	431	429	493
Fourth Year .....	189	222	296	391	425	463
Graduates .....	10	11	—	—	—	—
Unclassified .....	2	6	21	—	—	49
Total in Faculty .....	1808	2145	2410	2765	2947	3191

### Faculty of Education

#### Elementary Field:

First Year .....	206	203	216	247	331	355
Second Year .....	104	158	151	208	239	302
Third Year .....	70	104	124	146	153	209
Fourth Year .....	19	38	44	49	56	72
Fifth Year .....	—	—	—	2	6	10
Partial and Irregular (2nd Year) .....	—	—	3	—	—	—
Diploma Programme ..	—	—	—	24	45	37
	399	503	538	676	830	998

Internship Programme .....	—	—	—	—	—	13
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#### Transfer Programme

Post. B.Ed. Degree (Elem.) 5th Year Programme .....	161	142	159	121	142	133
	1	—	—	2	—	—

	162	142	159	123	142	133
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#### Secondary Field:

First Year .....	52	80	80	106	172	163
Second Year .....	31	29	48	85	103	143
Third Year .....	22	25	35	45	69	72
Fourth Year .....	21	21	22	23	28	38
Fifth Year .....	18	14	16	23	20	44
Intership Programme .....	—	—	—	—	17	20
Diploma Programme ..	23	20	25	48	50	72
Accelerated Industrial Educ. ....	—	—	—	—	—	20
Unclassified .....	167	189	226	330	459	572
	5	3	4	1	2	13

Total in Faculty .....	733	837	927	1130	1433	1716
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### Faculty of Fine Arts:

First Year .....	—	—	33	53	90	93
Second Year .....	—	—	3	27	40	72
Third Year .....	—	—	1	5	16	28
Fourth Year .....	—	—	—	3	9	21
Unclassified .....	—	—	—	—	—	2

Total in School .....	—	—	37	88	155	216
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### Faculty of Graduate Studies:

Total in Faculty .....	—	—	49	92	191	246
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TOTAL .....	2541	2982	3423	4075	4726	5369
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\*Figures compiled December 1.

1967-68 figures compiled September 29, 1967.

## STUDENTS OF NON-B.C. ORIGIN

### 1. Determined by permanent address.

	1965- 66	1966- 67	1967- 68	1968- 69	1969- 70
Alberta .....	14	23	36	38	31
Saskatchewan .....	4	6	9	7	5
Manitoba .....	—	—	7	7	5
Ontario .....	8	9	12	23	29
Quebec .....	2	4	5	6	5
New Brunswick .....	1	—	—	3	5
Nova Scotia .....	1	1	2	—	1
Prince Edward Island .....	—	—	—	—	—
Newfoundland .....	1	—	—	—	10
Yukon .....	2	3	2	} 11	} 3
Northwest Territories .....	—	1	1		
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Other Countries .....	33	47	74	95	94
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	18	26	28	62	91
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	51	73	102	157	185

### 2. Determined by location of previous educational institution attended.

	1969- 70
Alberta .....	68
Saskatchewan .....	45
Manitoba .....	28
Ontario .....	89
Quebec .....	33
New Brunswick .....	6
Nova Scotia .....	17
Prince Edward Island .....	1
Newfoundland .....	1
Yukon .....	1
Northwest Territories .....	—
Other Countries .....	199
	<hr/>
	488



