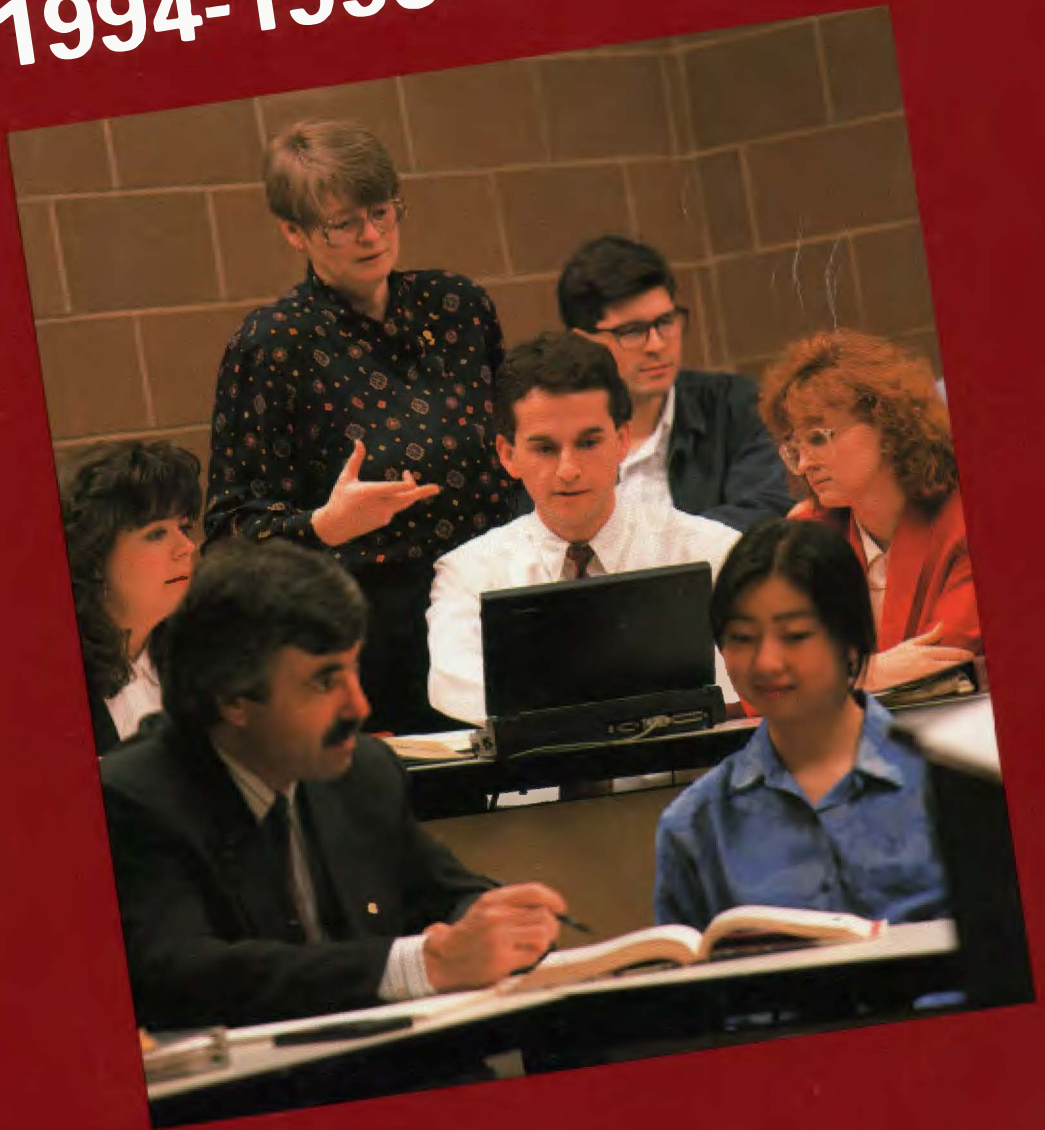




Saint Mary's
University

Halifax, Nova Scotia, Canada

Academic Calendar 1994-1995



The academic year to which this Academic Calendar refers begins on 1 September 1994. The University hereby gives notice that while the information contained in this Calendar is considered to be accurate at the time of preparation, there may be changes made subsequent to publication without prior notice. Publication date: 31 December 1993.

Students and other readers will appreciate that the matters dealt with in this Academic Calendar are subject to continuing review. Saint Mary's University reserves the right to alter what appears in this Academic Calendar and, without limiting the generality of the foregoing, to revise or cancel particular courses or programs, and to change the rate of fees and charges in order to serve the best interests of the University. The University cannot accept responsibility or liability for any person or persons who may suffer loss or damage, or who may be otherwise affected by changes as a result of suspension or termination of services, courses or classes caused by reason of strikes, lockouts, riots, weather, damage to University property or for any other cause beyond the reasonable control of Saint Mary's University.

While the University will make every reasonable effort to offer classes as required within degree, diploma and certificate programs, students should note that acceptance to an academic program does not guarantee admission in a particular year to a given class or a particular section of a class.



Academic Calendar of Saint Mary's University

1994-95

**Saint Mary's University
Halifax, Nova Scotia
Canada
B3H 3C3
Tel: (902) 420-5400
Fax: (902) 420-5561 (General)
(902) 420-5566 (President; Vice Presidents; Business Office)
(902) 420-5151 (Registrar's/Records)
(902) 496-8100 (Admissions)
(902) 420-5103 (Continuing Education)**

Using This Calendar

Some of the courses described in this Calendar will not be offered in 1994-95. Students are therefore advised to consult the academic timetable for those courses which will be taught in the 1994-95 academic year and the time(s) when they will be offered.

Frequently in this Calendar, the masculine includes the feminine and the plural includes the singular, and vice versa, as the context may require. This matter is subject to ongoing revision.

Inquiries regarding academic matters should be directed to the Registrar.

Although a university calendar is used by numerous people for many different purposes, one of its chief functions is to provide information for students interested in studying at the university level. The following was prepared to assist in finding relevant material in this Calendar.

Section 3 of this book sets forth the requirements for the several degree, diploma, and certificate programs offered at Saint Mary's University.

These programs include:

Bachelor of Arts
Bachelor of Commerce
Bachelor of Education
Bachelor of Education (Vocational)
Bachelor of Science
Diploma in Engineering
Master of Arts (in Atlantic Canada Studies, Education, History, International Development Studies, Philosophy, Sociology/ Criminology)
Master of Business Administration
Executive Master of Business Administration
Master of Education
Master of Science (in Astronomy, Applied Psychology)
Certificate of Honors Equivalency
Certificate in Criminology

After deciding on the academic program in which they are interested and studying the requirements of the program, students should consult Section 5 which contains descriptions of all the courses offered by the University's academic units. The timetable for the current academic year shows which courses will be available, when they will be taught, and by which instructor. Keeping within the requirements of the particular program chosen, students may then select the courses with the greatest interest and appeal to them.

Frequently a course will have several sections often taught at different times. This is arranged in order to keep classes to a reasonable size and to provide time options for students in the preparation of their timetables.

The next step is to apply for admission. Complete information on how to proceed is set forth in the latter part of Section 2. This section also contains the academic regulations and provides academic information. Details on fees and financial information are found in Section 6, which also contains facts about academic awards and scholarships as well as bursaries and student loans.

Inquiries related to specific problems should be directed to the officers indicated below.

Academic Policies and Records

Registrar (902-420-5582)
(Fax: 902-420-5151)

Admission of Students

Director of Admissions (902-420-5415)
(Fax: 902-496-8100)
Continuing Education (902-420-5492)
(Fax: 902-420-5103)

Alumni Affairs

Director of Alumni (902-420-5420)

Fees

Comptroller (902-420-5473)
(Fax: 902-420-5566)

Student Employment and Job Placement

Manager of Student Employment Centre (902-420-5498/9)

Residence Accommodation

Director of University Residences (902-420-5598)

Scholarships and Student Loans

Financial Aid Counsellor (902-420-5609)

Student Affairs

Director of Student Services (902-420-5615)

Summer School

Director of Continuing Education (902-420-5492)
(Fax: 902-420-5103)

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General Information

History
Calendar of Events
Board of Governors and Senate

General Information

History

Since its founding in 1802, Saint Mary's University has developed into a modern, urban university with more than 8,000 full and part-time students. It is the oldest English-speaking, Roman Catholic initiated university in Canada. With meagre resources, the Reverend Edmund Burke founded the institution and, on being named Bishop of Nova Scotia, insisted that support for the college be continued as essential in fostering the Catholic community.

In 1841 the Nova Scotian House of Assembly gave formal recognition of the college's academic role and, eleven years later, granted it legal status. The next few years saw a great deal of uncertainty about the survival of the college. However, in 1913 the Christian Brothers of Ireland were asked by the Archdiocese of Halifax to direct the college and its academic programs. Its reputation as a liberal arts institution thrived in these years. Undergraduate programs were widely respected and new instructional programs were initiated, the most notable being the Faculty of Commerce which, when established in 1934, was among the first of its kind in Canada. In 1940 the Upper Province of the Society of Jesus (the Jesuits) was invited to succeed the Christian Brothers as administrators and teachers. For more than thirty years, until the new Act of Incorporation in 1970, the college remained under Jesuit supervision. It established itself in teacher education; initiated the first courses in continuing education in Halifax/Dartmouth; purchased the first computer in Atlantic Canada; and became co-educational. Also, the long-standing emphasis on liberal arts and commerce was complemented by new programs in engineering and science. The Act of 1970 gave legal status to the Board of Governors and Senate. Subject to the powers of the Board, the Senate is responsible for the educational policy of the University. In 1974, faculty members formed the Faculty Union which has become an influential voice in the affairs of the University.

From the Jesuits and their predecessors, Saint Mary's has inherited a strong commitment to meeting community needs and an equally strong tradition of emphasising excellence in teaching and excellence in research. During the past two decades Saint Mary's has evolved into a more complex urban university, with a full range of undergraduate programs in arts, commerce, education, and science. Now a publicly accessible, co-educational institution, functioning with a sense of its tradition, the University also offers pre-professional programs in law, medicine, engineering, theology, dentistry, architecture, as well as selected graduate studies. Through the co-operative efforts of the Division of Continuing Education, part-time students study in these programs and in a variety of non-credit programs all of which have been rapidly expanding both in numbers and geographic locations.

Over the last twenty years this commitment to academic and research excellence has seen the number of full-time faculty with doctoral degrees rise to 85 percent. Part-time faculty members are recruited on the strength of academic qualifications in addition to the expertise and experience they can bring to the classroom.

More dramatic evidence of faculty enrichment is demonstrated by their research activities. In the last ten years, sponsored contract and academic research has increased from \$250,000 to more than \$4,200,000. This 1580% increase reflects the University's firm belief that excellence in both teaching and research are essential for professors and that research is an integral part of the contributions that universities must make to society.

The quality of instruction to students has been a focal point of Saint Mary's University since its founding. This long standing tradition of commitment to excellence in teaching has seen the introduction of new initiatives. The Quality of Teaching Committee has assisted faculty members by offering workshops on instructional techniques and innovations in teaching methodology including the use of computers. Awards for Teaching and Research Excellence are presented annually to members of faculty.

More than eleven thousand students are enrolled during the academic year and in the two summer sessions at Saint Mary's University. They attend day and evening classes both on the 30 acre campus in the south end of Halifax and at off campus locations including the World Trade and Convention Centre in downtown Halifax, and in Dartmouth, Truro, and several other communities. Saint Mary's boasts residence facilities for single and married students, a Student Centre, Science Building, the Patrick Power

Library, which is linked via computer to several other Halifax-Dartmouth universities, a multi-million dollar Computer Centre, and "The Tower" which is Atlantic Canada's most modern recreation and fitness complex. Over the last number of years, Saint Mary's University has become a teaching and research institution where tradition meets the future.

The traditions formed by its founder and early teachers, built upon by the sound educational values of the Christian Brothers, and strengthened by the imaginative leadership of the Jesuits, provide a stable base for future development. Saint Mary's has been innovative in seeking co-operative ventures with other Maritime universities. The results have included the Regional X-Ray Fluorescence Laboratory as well as the Gorsebrook Research Institute which contributes to the understanding of our regional culture within a national context. In response to the imperative that modern universities increase their outlook and outreach to other parts of the world, Saint Mary's University houses the Canada-China Language and Cultural Project. Our 'internationalization' has also seen formal teaching and research agreements signed with universities around the world including Japan. The Atlantic Centre of Support for the Disabled has grown remarkably over the last several years. This Centre provides a variety of support to an increasingly important sector of our student population. It also provides assistance to disabled students studying at other Maritime post secondary institutions.

Saint Mary's University concentrates on its mission of providing excellence in its service to students and the larger community around the campus. Its reputation is one of quality education on a campus environment where individual development is paramount. Saint Mary's student population is drawn largely from Halifax and Dartmouth with fifty-seven percent of its students from this area. Nova Scotia is the home province of 87 percent of Saint Mary's students. There is also a distinct international aspect to the University with students from many countries including China, Japan, Bermuda, the United States, and Kenya. We are ambitiously pursuing a goal shared by many. It is a vision centred around continued academic excellence in teaching and research, accessibility for all Nova Scotians, strong community outreach, and facilities and instruction for the physically challenged. With its strong sense of where it has been, Saint Mary's University has focused clearly on the mission ahead — being "where tradition meets the future...."

Statement of Objectives

The objectives of the University, as defined in the Saint Mary's University Act, 1970, are to:

- promote and disseminate learning and knowledge;
- give special emphasis to the Christian tradition and values in higher education;
- provide an atmosphere of freedom, responsibility, and mutual respect in the University community;
- aid in the improvement of society in all ways consistent with these objects.

Memberships

Saint Mary's University is a member of a number of organizations including Association of Universities and Colleges of Canada, Association of Atlantic Universities, and Association of Commonwealth Universities.

Affiliations

Saint Mary's University has been associated with the Technical University of Nova Scotia since 1916, providing the first two years of study leading to the degree of Bachelor of Engineering in civil, electrical, mechanical, mining, metallurgical, chemical, and industrial engineering. Formal association also exists between the University and Ignatius College in Guelph. The affiliation between Saint Mary's University and Regis College, Toronto, is presently in suspension in light of the association between the Toronto School of Theology and Regis College.

University Crest and Motto

The University crest was designed in the 1940s by the Reverend Daniel Fogarty, S.J., the then Dean of Education. Each symbol in the crest has a significance relevant to the various phases and history of the University.

On the outer portion of the crest the name and location of the University are inscribed in Latin, and in Roman numerals (1841), the date the University received its charter authorizing it to grant degrees.

The book shown above the shield represents learning and knowledge. The inscription on the page of the book is in Latin - "Age Quod Agis". This is the motto of the University which exhorts all those connected with the University to strive to do their best in everything that they do. This quotation is from the Irish Christian Brothers and symbolizes their contribution to the development of the institution.

The centre portion of the crest is a shield. The upper part of this has the official seal of the Jesuits with I.H.S. being the Latin initials for Christ's name. Below these initials are the three nails which represent the Crucifixion and surrounding these is the Crown of Thorns.

The two crowns in the lower part of the shield represent a dual loyalty - to the then Dominion of Canada and to the British Commonwealth. Below these crowns is the thistle, which stands for Nova Scotia's Scottish heritage.

University Colors

The official colors of the University are maroon and white.

The University Mace

The ceremonial mace, which is carried by the Marshal of Convocation at the head of the academic procession, was presented to Saint Mary's in April 1980 and used for the first time at the 1980 Convocation. It symbolizes the University's authority to grant degrees. It was made and presented to the University by Maritime Command in recognition of Saint Mary's alumni killed in both world wars and also serving members of the Canadian Armed Forces who have been students at the University.

The mace is made of oak with a cast brass crown and brass plates carrying traditional ceremonial engravings. The plates represent the contribution to Saint Mary's by the Jesuit Fathers, the Christian Brothers of Ireland, the Archdiocese of Halifax, the LaSalle Christian Brothers, the Lay Teachers, and the Armed Forces.



Convocation – Spring '93

CALENDAR OF EVENTS

1994-95

I. HIGHLIGHTS

1994

July

4

Deadline to file applications for Fall Convocation, 1994.

Registration

Details on registration for the 1994-95 academic year will be published at a later date and will be advertised in the *Registration Book*.

September

9

Classes begin.

23

Deadline to file applications for Spring Convocation, 1995.

30

Deadline to pay first semester fees.

October

10

Thanksgiving Day. No classes.

23

Fall Convocation, 1994.

November

10

Deadline to withdraw from first semester courses (.1) or full courses (.0) taught only in the first semester.

11

Remembrance Day. No classes.

December

2

Last day of classes in first semester.

5-17

Formal examinations.*

8

Patronal Feast of the University.

17

First semester ends.*

1995

January

3

University reopens. No classes.

3-4

Registration.

3-6

Change of Registration.

4

Classes resume.

14

Deadline to withdraw from full courses (.0).

15

Deadline to pay second semester fees.

February

20-24

Winter Break.

March

13

Deadline to withdraw from second semester courses (.2) or full courses (.0) taught only in the second semester.

April

5

Last day of classes in second semester.

6-7

Study Days. No classes.

8-22

Formal examinations.*

21

Last day for potential graduates to notify the Registrar of their being "in absentia" at Spring Convocation, 1995.

22

Second semester ends.*

May

8

Spring Convocation, 1995.

July

4

Deadline to file applications for Fall Convocation, 1995.

*Subject to change should it not be possible to schedule all formal examinations in this period.

II. DETAILED SCHEDULE

1994	
July	
4 Monday	Deadline for filing an Application for Graduation for Fall Convocation, 1994.
Registration	
Details on registration for the 1994-95 academic year will be published at a later date and will be advertised in the <i>Registration Book</i> .	
September	
9 Friday	CLASSES BEGIN.
23 Friday	Last day for filing applications for degrees, diplomas and certificates to be awarded at Spring Convocation, 1995.
30 Friday	Last day for final payment of first semester tuition fees.
October	
10 Monday	Thanksgiving Day. No classes.
23 Sunday	Fall Convocation, 1994.
November	
10 Thursday	Last day for withdrawing from a first semester course (.1) or a full course (.0) taught only in the first semester.
11 Friday	Remembrance Day. No classes.
December	
2 Friday	Last day of classes in first semester.
5-17 Monday-Saturday	Formal final examinations in first semester courses (.1) and formal mid-year examinations in full year courses (.0). Note: If necessary to accommodate scheduling, this examination period may have to be extended, and, if so, examinations may begin on Saturday, 3 December.
8 Thursday	Patronal Feast of the University. Traditionally, examinations are not scheduled on this day.
17 Saturday	First semester ends.
1995	
January	
3 Tuesday	University reopens. No classes. Registration and Change of Registration begins.
4 Wednesday	CLASSES RESUME. Registration and Change of Registration continues.
5 Thursday	Change of Registration continues.
6 Friday	Change of Registration concludes.
14 Saturday	Last day for withdrawing from a full course (.0) taught over both semesters.
15 Sunday	Last day for final payment of second semester tuition fees.
February	
20-24	Winter Break.
March	
13 Monday	Last day for withdrawing from a second semester course (.2) or a full course (.0) taught only in the second semester.
April	
5 Wednesday	Last day of classes in second semester.
6 Thursday	Study Day. No classes.*
7 Friday	Study Day. No classes.*
8-22 Saturday-Saturday	Formal final examinations in second semester courses (.2) and in full courses (.0). Note: If necessary to accommodate scheduling, this examination period may have to be extended and, if so, examinations may begin earlier than 8 April or conclude later than 22 April. Traditionally, no examinations are scheduled on Good Friday (14 April).
21 Friday	Last day for potential graduates to notify the Registrar of their being "in absentia" at Spring Convocation, 1995.

22 Saturday Second semester ends.

May
8 Monday Spring Convocation, 1995.

July
4 Tuesday Last day for filing applications for degrees, diplomas, and certificates to be awarded at Fall Convocation, 1995.

Each year, Saint Mary's University offers two summer sessions, the first from mid-May to the end of June; the second from early July to mid-August. For 1994, the dates of the First Summer Session are 11 May to 24 June, and for the Second Summer Session, 4 July to 19 August. Details are available in the Summer Sessions brochure published annually by the Division of Continuing Education.

1994

JULY	AUG	SEPT	OCT	NOV	DEC
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2	1 2 3 4 5 6	1 2 3	1	1 2 3 4 5	1 2 3
3 4 5 6 7 8 9	7 8 9 10 11 12 13	4 5 6 7 8 9 10	2 3 4 5 6 7 6	6 7 8 9 10 11 12	4 5 6 7 8 9 10
10 11 12 13 14 15 16	14 15 16 17 18 19 20	11 12 13 14 15 16 17	9 10 11 12 13 14 15	13 14 15 16 17 18 19	11 12 13 14 15 16 17
17 18 19 20 21 22 23	21 22 23 24 25 26 27	18 19 20 21 22 23 24	16 17 18 19 20 21 22	20 21 22 23 24 25 26	18 19 20 21 22 23 24
24 25 26 27 28 29 30	28 29 30 31	25 26 27 28 29 30	23 24 25 26 27 28 29	27 28 29 30	25 26 27 28 29 30 31.
31			30 31		

1995

JAN	FEB	MAR	APR	MAY	JUNE
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6 7	1 2 3 4	1 2 3 4	1	1 2 3 4 5 6	1 2 3
8 9 10 11 12 13 14	5 6 7 8 9 10 11	5 6 7 8 9 10 11	2 3 4 5 6 7 8	7 8 9 10 11 12 13	4 5 6 7 8 9 10
15 16 17 18 19 20 21	12 13 14 15 16 17 18	12 13 14 15 16 17 18	9 10 11 12 13 14 15	14 15 16 17 18 19 20	11 12 13 14 15 16 17
22 23 24 25 26 27 28	19 20 21 22 23 24 25	19 20 21 22 23 24 25	16 17 18 19 20 21 22	21 22 23 24 25 26 27	18 19 20 21 22 23 24
29 30 31	26 27 28	26 27 28 29 30 31	23 24 25 26 27 28 29	28 29 30 31	25 26 27 28 29 30
			30		

Board of Governors and Senate

Board of Governors

Chairperson

E. J. Flinn, Q.C.

Vice-Chairperson

Mr. J. G. (Jack) Keith, O.C.

Members Ex-Officio

Chancellor

Archbishop Austin E. Burke

Vice-Chancellor

Reverend Owen Connelly, V.G.

President

Dr. Kenneth L. Ozmon

Vice-President (Academic and Research)

Dr. J. Colin Dodds

Vice-President (Administration)

Mr. Guy L. Noel

Members Appointed by the Roman Catholic

Episcopal Corporation

Rev. J. Christensen

E. J. Flinn, Q.C.

Judge Helen Gillis

to July 31, 1995

to July 31, 1995

to July 31, 1995

Members Elected by the Alumni Association

Robert Belliveau, Q.C.

Mr. John Bishop

Mr. Paul Goodman

Mr. Robert Kelly

Ms. Karen Oldfield

Dr. Gerald Reardon

to July 31, 1994

to July 31, 1996

to July 31, 1994

to July 31, 1995

to July 31, 1996

to July 31, 1995

Members Elected by the Academic Staff

Dr. Clive Elson

Dr. Wayne Grennan

Dr. Samuel Jopling

Prof. Arthur Murphy

Dr. Peter Ricketts

Dr. John Young

to July 31, 1995

to July 31, 1996

to July 31, 1994

to July 31, 1995

to July 31, 1994

to July 31, 1996

Members Elected by the Students

Ms. Elizabeth Boudreau

Mr. Kyle Langille

Mr. Robert Pearson

to July 31, 1994

to July 31, 1994

to July 31, 1994

Member Appointed by the Upper Canada Province of the Society of Jesus

Reverend L. F. Murphy, S.J.

to July 31, 1994

Members Elected by the Board of Governors

Hon. Alan R. Abraham

Mr. Louis R. Comeau

Mrs. Iona Crawley

Mr. Craig Dobbin

Mrs. Martha Jodrey

Mr. J. G. (Jack) Keith, O.C.

Mr. David F. Sobey

Mr. Mike Zatzman

to July 31, 1995

to July 31, 1995

to July 31, 1995

to July 31, 1995

to July 31, 1994

to July 31, 1995

to July 31, 1994

to July 31, 1994

Members Appointed by the Lieutenant-Governor in Council

Mr. F. MacGillivray

Mr. James F. Snell

to July 31, 1994

to July 31, 1994

Observer Elected by Support Staff

Mr. Barry Gallant

to May 25, 1994

Academic Senate

Chairperson

Mr. Ronald A. Lewis

Vice-Chairperson

Dr. Peter Ricketts

Secretary

Mr. Kevin J. Cleary

Members Ex-Officio

Dr. Kenneth L. Ozmon, President

Dr. J. Colin Dodds, Vice-President (Academic and Research)

Dr. David H. Richardson, Dean of Science

Dr. A. Scott Carson, Dean of Commerce

Dr. Michael J. Larsen, Dean of Arts

Dr. Terry Piper, Dean of Education

Mr. Ronald A. Lewis, Librarian

Dr. Elizabeth A. Chard, Registrar

Mr. Keith Hotchkiss, Director of Student Services

Members Elected

To August 1996

Dr. J. Dostal

Dr. J. Ginsburg

Dr. W. Katz

Dr. H. McGee

Dr. P. Ricketts

To August 1995

Dr. S. Bell

Dr. R. Bollini

Dr. P. Bowlby

Dr. J. Haysom

Dr. L. Rieber

To August 1994

Dr. F. Dougherty

Dr. H. Millar

Dr. G. Pe-Piper

Prof. K. Snyder

Dr. J. Waldron

Student Senators (1993-94)

Ms. Elizabeth Boudreau

Mr. Allison Cook

Ms. Mary E. Kirby

Mr. Brian Welcher

Admission

**Academic Regulations
and
Information**

Registration

Section

2

Admission

Students seeking admission to any academic program (except as noted below in 3 and 4), undergraduate or graduate, at Saint Mary's University should address all inquiries, requests for application forms, and correspondence to:

Director of Admissions
Saint Mary's University
Halifax, Nova Scotia
B3H 3C3

Telephone: (902) 420-5415
Fax: (902) 496-8100

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1. Procedures for Admission to Undergraduate Programs

a. Applications from Canadian students (except those transferring from other post-secondary institutions) must reach the Admissions Office by 1 July for September admission; 1 November for January admission. For non-Canadian applicants, the deadlines are 1 April for September admission; 1 August for January admission. The deadline for receipt of applications from students who wish to transfer from another post-secondary institution to Saint Mary's University beginning in September is 1 June; beginning in January, the deadline is 1 October. Enclose provincial certificates or other accredited school certificates giving final grades or marks, and a processing fee of \$30.00 with the application forms.

b. Applicants who have completed courses at another post-secondary educational institution must request an official transcript be sent to Saint Mary's University. Failure to report all institutions attended will result in dismissal from the University.

c. (i) Former Saint Mary's University students who were not in attendance during the preceding academic year or during a period of up to four years; who were not required to withdraw from the University and who wish to resume studies in the same academic program in which they were formerly registered, must notify the Registrar in writing of their intent to return to the University before registering for any course, and must fill in a Data Sheet available from the Registrar's Office. The deadlines for filing this Data Sheet are the same as those found in 1-a.

(ii) Students seeking to enroll in a different academic program, or who have not been registered during at least the preceding four years, or who have been required to withdraw, must apply for re-admission to the Director of Admissions (see Academic Regulations). The deadlines found in 1-a apply.

d. Students who were registered in an academic program during the entire preceding academic year are not required to reapply for admission to the University. Such students will automatically be sent information with respect to registration for the coming year. This mail-

out is sent to the students' home addresses unless an alternate address has been filed officially with the Registrar by the stipulated deadlines.

e. Once admitted to the University, the student agrees to abide by any and all rules and regulations affecting students officially passed and duly promulgated. The student agrees that failure to abide by such regulations and rules may result in expulsion from the University without refund of tuition or any other fees paid by the student to the University.

2. Requirements for Admission to Undergraduate Programs

a. General Considerations

(i) The following requirements have been established as a guide to applicants. Possession of these minimum requirements does not establish the right of an applicant to be admitted or readmitted to the University. The University reserves the right to accept or reject any applicant. An acceptance is valid only for the two summer sessions preceding an academic year (i.e., May to August) and the academic year (i.e., September to May). It cannot be deferred. An applicant who does not register in this twelve month timeframe must reapply for admission. Admission is not guaranteed.

(ii) Definitions:

(a) "Satisfactory grades" means an average in five subjects of 65 percent and no mark below 60 percent.

(b) "Academically recognized subjects" means subjects offered in the university preparatory program of an approved school system.

b. Nova Scotia

Students applying from Nova Scotia Grade 12 with satisfactory grades in English and four other academically recognized subjects, as defined below, may be admitted. Requirements are as follows:

(i) Faculty of Arts: English 441 plus 4 additional academic courses, one of which may be coded 341;

(ii) Faculty of Science: English 441, Mathematics 441, 2 sciences at the 441 level, plus one subject at the 341 or 441 level;

(iii) Division of Engineering: English 441, Mathematics 441, Physics 441, Chemistry 441, plus one subject at either the 341 or 441 level;

(iv) Faculty of Commerce: English 441, Mathematics 441 or 442, and three other academic subjects, one of which may be coded 341.

c. Quebec

Students who have completed the first year of CEGEP with high standing may be considered as having the equivalent of Nova Scotia Grade 12. Credits for students with two years of CEGEP will be assessed separately.

d. Ontario

Students who have completed Grade 13/OAC may be considered as having the equivalent of Nova Scotia Grade 12.

e. Other Provinces

New Brunswick, Prince Edward Island, Newfoundland, Manitoba, Saskatchewan, Alberta and British Columbia: Students applying from these provinces who have completed Grade 12 may be considered as having the equivalent of Nova Scotia Grade 12.

f. United States

(i) Students who have Grade 12 with 16 points - 4 in English and 12 in other academic subjects, will be considered as having the equivalent of Nova Scotia Grade 12. Students seeking admission to Engineering and Science must have 3 points in mathematics and at least 3 points in science subjects. Students seeking admission to Commerce must have 3 points in mathematics.

(ii) Students must arrange to provide the Admissions Office with a high school transcript, CEEB and SAT score results.

g. Bermuda

Students who have completed Grade 12 with good standing or British or Caribbean General Certificate of Education (GCE) with passes in at least five subjects, two of which must be at the advanced level, will be considered as having the equivalent of Nova Scotia Grade 12.

h. United Kingdom, West Indies, West Africa, Hong Kong and Other Countries

British or the Caribbean General Certificate of Education (GCE) with passes in at least five subjects, two of which must be at the advanced level, will be considered as having the equivalent of Nova Scotia Grade 12.

l. Language Requirement

Students whose first language is not English, and who have not attended an English language secondary school, are required to take one of the standardized English language proficiency tests. These tests are administered by the University of Michigan, the College Entrance Examination Board, the University of Cambridge, and Saint Mary's University. The normal standards for admission to the University are as follows:

- (i) a minimum score of 550 on the Test of English as a Foreign Language (TOEFL); or
- (ii) an aggregate grade of C or higher on the Cambridge First Certificate in English; or
- (iii) a minimum score of 90 on the Michigan examination (MELAB); or
- (iv) an average of 4.625 on the CanTEST administered by Saint Mary's University.

One of the above examinations may be taken in almost any country of the world at almost any time of the year.

Applicants should apply directly to one of the following testing centres:

- (i) Educational Testing Service (TOEFL)
Box 899
Princeton, New Jersey 08514 U.S.A.
- (ii) Cambridge Examinations in English
Local Examinations Syndicate
Syndicate Buildings
Cambridge, England
- (iii) University of Michigan English Proficiency Test
Language Institute of Ann Arbor
Ann Arbor, Michigan 48104 U.S.A.
- (iv) For the CanTEST:
 - (a) Division of Continuing Education
Saint Mary's University
Halifax, Nova Scotia B3H 3C3
 - (b) Canada Chinese Language Centre
Beijing Normal University
Beijing 100088
People's Republic of China

Students whose first language is not English should note academic regulation 23 below.

Note: Non-Canadian students on visas, student authorization, or minister's letter permits are advised that they are responsible for complying with the Immigration Laws of Canada. Students are responsible for keeping informed of revisions and addenda to these Laws.

j. International Baccalaureate Diploma

Students who successfully complete the requirements for this diploma program may be regarded as having the equivalent of Nova Scotia Grade 12.

3. Mature Admission

a. To qualify for admission as a mature student, the applicant must be at least twenty-two years of age and must show, through educational upgrading, work experience or community volunteer work, ability to benefit from university level education. Normally, mature applicants must have been out of school for at least five years.

The Division of Continuing Education holds regular information sessions to advise mature students on application procedures and required documentation. To attend please call 420-5492.

b. The application procedure for admission as a mature student is as follows:

(i) Application forms may be obtained by writing, telephoning, faxing or visiting:

Admissions Office
Room 102, McNally Building
Saint Mary's University
Halifax, Nova Scotia, B3H 3C3
Telephone: (902) 420-5415
Fax: (902) 496-8100

(ii) Send the completed application form with an application fee of \$30.00; a letter of intent which states personal and career goals, reasons for applying to the university and preparations for academic study; a resume detailing work experience and community volunteer work; and, if possible, a copy of high school marks.

(iii) Applicants who have registered for credit courses at another university or recognized post-secondary educational institution must request that institution to send official transcripts of their academic record directly to the Admissions Office.

(iv) All documentation must be received before the application will be considered.

4. Procedures for Other Admission Categories**a. Admission to Non-Degree Status (NDS)**

(i) Individuals interested in taking one or more courses at the University without being registered in an academic program can seek admission as a non-degree status student. Such students must meet the stated prerequisites for the course(s) for which they register. Students may take no more than five credits (5.0) as non-degree students. If non-degree students wish to continue to study at Saint Mary's beyond five credits, they must formally be admitted to an academic program. Students who are subsequently admitted to academic programs from a non-degree status may count the university credits that they have earned as non-degree students. All courses attempted at the University will remain a part of the students' permanent records.

(ii) Under special circumstances and with the permission of the appropriate Dean, high school students may be admitted to enroll as non-degree students in Saint Mary's courses for which they have the necessary prerequisites.

(iii) Non-degree students must apply through the Office of the Director of Continuing Education. A separate application is required for each academic year or summer session(s) in which the student is enrolled with this admission basis.

b. Admission as a Transfer Student

Students who have been enrolled in an academic program at another university should follow the regular procedure for admission to Saint Mary's through the Admissions Office. In order to be considered admissible, transfer students are normally required to have achieved a minimum average of C. If admitted, transfer students may receive advanced standing credit in conformity with the principles and procedures stated in academic regulation 20. Failure to report all institutions previously attended may result in dismissal from the University.

c. Admission as an Upgrading Student

Students who already hold a degree or professional certificate may enroll in a course(s) to upgrade their qualifications. Special 'Application for Admission' forms are available in the Registrar's Office and must be filed by the deadlines found above in 1-a. Students are required to follow normal registration procedures. Such students must meet the stated prerequisites for the course(s) for which they register. For this admission category, a separate application is required for each academic year or summer session.

d. Admission as a Student Auditor

Students who are interested in auditing a course (see academic regulation 2 below) are required to complete a special 'Application for Admission' form available in the Registrar's Office which must be filed by the deadlines found above in 1-a. Students are required to follow normal registration procedures. These students must meet any stated prerequisites for the course(s) for which they register and pay regular tuition fees.

e. Admission as a Special Student on a Letter of Permission
Students currently enrolled at another institution, who have letters of permission to take courses at Saint Mary's University for transfer of credit to their home institution, must complete a special 'Application

for Admission' form available in the Registrar's Office which, wherever possible, must be filed by the deadlines found above in 1-a. Students are required to follow normal registration procedures. In addition, these students must file a Letter of Permission with the Registrar at Saint Mary's. In all cases, grades for all courses for which students register will be forwarded to the students' home universities. Saint Mary's shall not be held responsible for meeting the deadlines for submission of grades of other universities.

Note: All deadlines as promulgated in this publication, including the Calendar of Events, apply to all students regardless of their admission category.

5. Graduate Admission

Admission to a graduate program at the University is covered in Section 3 of this Calendar.

Note: At the time of initial application to a degree, diploma, or certificate program involving credit courses, each student is issued with a Saint Mary's University I.D. number. This number must be shown on all transactions with the University. If after being accepted, a student opts not to register for the upcoming summer sessions or the academic year, the I.D. number is cancelled.



Academic medal winners at Convocation

Academic Regulations

The information, regulations, and guidelines contained in this section apply to all students at the University. Additional regulations pertaining to the Masters' programs are in Section 3 of this Calendar.

Note: Currently, the University is reviewing all of its academic regulations and hereby serves notice that significant revision(s) thereto may occur prior to the beginning of the 1994-95 academic year. These may be promulgated officially in the *Registration Book, 1994*.

Introductory Information

Definitions

Academic Year	The period immediately following Labor Day in September to and including Convocation Day in May of the following year.	Preparatory Course	Nova Scotia Grade 12 equivalent course designed to prepare students for entry level course work. No academic credit is awarded toward any degree, diploma, or certificate. A preparatory course's number begins with zero (0).
Academic Status	Senior: one who has 13.0 or more credits Junior: one who has 8.0 to 12.5 credits Sophomore: one who has 3.0 to 7.5 credits Freshman: one who has 0.0 to 2.5 credits	Prerequisite	A condition that must be fulfilled prior to registration in a particular course.
Admission	Acceptance of an applicant as a student.	Probation	A conditional status assigned to a student who has shown evidence of academic weakness.
Advanced Standing	Credit granted for work completed at a post-secondary institution before admission to Saint Mary's University.	Program	An approved group of courses leading to a degree, diploma, or certificate.
Attendance Status	A student officially registered for at least 3 credit courses in a semester is considered to be "full-time", whereas a part-time student is registered for less than 3 credit courses in a semester.	Qualifying Year	Students may be required to complete one or more courses to qualify for a graduate program.
Audit	Registered for a course(s) without working for or expecting formal credit(s).	Registration	Enrollment of a student in a course, courses, or program, including the payment of fees.
Bursary	A monetary grant based on financial need.	Satisfactory academic standing (standard)	Maintaining a quality point average of at least 1.50 if an undergraduate; at least 3.00 if in a graduate program.
Chairperson	Faculty member responsible for a Department or academic area of study.	Scholarship	A monetary award based on academic achievement.
Course	A unit of instruction in a particular subject. The last digit of course numbers designates the following: .0 - full year course (6 semester hours) .1 - first semester half-course (3 semester hours) .2 - second semester half-course (3 semester hours)	Semester	A term or period of instruction corresponding to one-half of the academic year; each semester lasts approximately fourteen weeks.
Credit	A completed full course or two completed half-courses. One credit (1.0) is granted for each successfully completed full-year course (designated .0 - i.e., EGL 306.0); a half-credit (0.5) is granted for a successfully completed one-semester course (designated either .1 or .2 - i.e., EGL 201.1 or EGL 201.2). In this Calendar, the term "credit" normally refers to a full credit, i.e., 1.0.	Special Student	A student from another academic institution who has a letter of permission to register for a course(s) at Saint Mary's University.
Dean	Also called Dean of the Faculty; the chief academic administrator of a Faculty.	Subject	Also called a discipline; a specific field of study, e.g., Accounting, Chemistry, History.
Elective	A course not specifically required by a student's program of studies.	Summer Sessions	Periods of instruction normally lasting six to seven weeks during the months of May through August. Two summer sessions are offered each year.
Faculty	When spelled with a capital F, refers to an academic unit offering its own degree program(s); when spelled with a small f, refers to instructors in a Faculty.	Transcript	A document of a student's academic record. Transcripts can be official or unofficial.
Grade	The letter indicating an instructor's evaluation of a student.	Transfer Credit	Credit granted for work completed at another post-secondary academic institution after admission and initial registration at Saint Mary's.
Instructor	A member of faculty.	Upgrading Student	A student who already holds an undergraduate degree or professional certificate and who wishes to take an additional credit course(s) at Saint Mary's University.
Major	A subject or area of concentration.	Year of Study	Refers to undergraduate degree programs only. Year 1: 0.0 - 5.0 credits Year 2: 5.5 - 10.0 credits Year 3: 10.5 - 15.0 credits Year 4: 15.5 - 20.0 credits
Non Degree Status (NDS)	An admission status permitting a student to take a course although that individual has not been accepted in an academic program at Saint Mary's University.	Course and Major Abbreviations	
		Accounting	ACC
		Anthropology	ANT
		Asian Studies	ASN
		Astronomy	AST
		Astrophysics	ASP
		Atlantic Canada Studies	ACS
		Biology	BIO
		Business Administration	BUS
		Certified Management Accountant Program	CMA
		Chemistry	CHE

Chinese	CHI
Classics	CLA
Commercial Law	CML
Communication	COM
Computing Science	CSC
Co-operative	COP
Co-operative Education Program in Accounting	COEA
Co-operative Education Program in Biology	COEB
Co-operative Education Program in Chemistry	COEC
Co-operative Education Program in Computing Science	COES
Co-operative Education Program in Geology	COEG
Creative Writing	CRW
Criminology Certificate Program	CRM
Data Processing Program	DPM
Diploma in Management Accounting	DMA
Economics	ECO
Education	EDU
Egyptian	EGP
Engineering	EGN
English	EGL
English as a Foreign Language	EFL
English as a Second Language	ESL
Environmental Studies	ENV
Executive Master of Business Administration	EMB
Finance	FIN
French	FRE
General Business Studies	GBS
Geography	GPY
Geology	GEO
German	GER
Global Business Management	GBM
Greek	GRE
Hebrew	HEB
History	HIS
Human Resource Management and Industrial Relations	HRM
Image Studies	IST
Independent Study Program	ISP
International Development Studies	IDS
Irish Studies	IRS
Latin	LAT
Linguistics	LIN
Management	MGT
Management Science	MSC
Marketing	MKT
Master of Business Administration	MBA
Mathematics	MAT
Philosophy	PHI
Physics	PHY
Political Science	POL
Psychology	PSY
Religious Studies	REL
Co-operative Education Program in Small Business/Entrepreneurship	SBE
Sociology	SOC
Spanish	SPA
Women's Studies	WMS

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It is the responsibility of students, faculty members, and administrative officers concerned with academic matters to be familiar with the rules and regulations published in this Calendar. In particular, it is the responsibility of students to ensure that the courses which they take are appropriate to the academic program in which they are registered, involve no timetable conflicts, and collectively satisfy all the requirements of that program.

1. Number of Courses in a Year

a. Students must formally register for all courses. In the Faculties of Arts, Commerce and Science (excluding Engineering), the normal load in an academic session for a full-time undergraduate is five full courses (or half-course equivalent) per semester; while in the Division of Engineering, six full courses (or half-course equivalent) per semester constitute a normal full-time load. The Bachelor of Education program requires the completion of seven full courses (or half-course equivalent). Undergraduate students registered for at least three full courses (or half-course equivalent) in a semester are considered to be full-time, while students registered for fewer than three full courses (or half-course equivalent) per semester are part-time. During the same academic year it is possible for students to be full-time in one semester and part-time in the other. Graduate students' registration status is determined on a program specific basis.

b. Students may apply to the Dean of their Faculty for permission to carry an extra half or full course. Normally, permission will be granted only to students whose quality point average during the previous year was at least 3.00. Course Overload Request forms are available in the Registrar's Office and, on completion, must be filed with the Registrar for processing.

c. Students are normally permitted to take only one credit (1.0) during a summer session. In exceptional circumstances and where students have attained a quality point average of 3.00 during the previous academic year of full-time study, or proven consistent performance at least at the 3.00 level in the case of part-time study, two credits (2.0) may be authorized at the discretion of the Dean of the Faculty. No more than three credits (3.0) may be taken by students during the two summer sessions in any year. Forms to request a credit overload during a summer session are available in the Registrar's Office and, on completion, must be filed with the Registrar for processing.

2. Auditing Courses

Students may audit courses but they must formally register as auditors in these courses. Auditors participate in all regular class activities, but are not expected to prepare formal assignments, write papers, or take quizzes, tests, or examinations. With the permission of the instructor, however, they may perform these activities and receive an informal evaluation of their work. Audited courses are not given credit or regular grades but the notation of AU is included on the students' official record. Within the normal time limits for changing courses (see 13-b), students may request permission to change from regular registration status in a course to auditing status or vice versa.

3. Academic Advising

a. Although students are responsible for ensuring that they meet the requirements of their academic programs, the University makes every effort to provide assistance in the selection of courses and programs. Such advice is readily available during Registration. At all other times, and indeed during Registration if particular problems arise, students who have already decided upon their areas of

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concentration will be advised by the Chairperson of the appropriate departments or their appointees. All other students should seek advice from the Dean of their Faculty who will, if necessary, assign special academic advisors. It is strongly recommended that students consult with their assigned advisor prior to withdrawing from a course(s).

b. Academic counselling is particularly recommended for the following students:

- (i) all students who are on academic probation as defined in regulation 7-d;
- (ii) all students who have previously incurred probationary status and who, upon the completion of any subsequent course(s), have not yet achieved a minimum cumulative quality point average of 1.50;
- (iii) all students who do not attain a quality point average of at least 1.50 in any given semester;
- (iv) all students who are resuming their studies after having been required to withdraw from the University because of academic weakness [see regulation 7-h(iii)];
- (v) all full-time students who have received two or more grades of W or F in any given semester;
- (vi) all full-time students who are resuming their studies after having voluntarily withdrawn from the University;
- (vii) all part-time students who withdraw from two (2.0) or more of any five (5.0) consecutive credits.

c. Students who are urged to confer with their academic advisor will be notified by their Dean and will be urged to meet with their advisor within the time frame indicated in the Dean's notice. Students who have not yet officially declared a major program or concentration and who therefore do not yet have an academic advisor will be assigned to a faculty advisor by the Dean. It is strongly recommended that students consult with their assigned advisor prior to withdrawing from a course(s).

4. Grading System

- a. The final grade for a course will be based on the quality of a student's work including, where appropriate, essays and exercises, class tests, end of semester examinations, final examinations, reports, class participation, laboratory work, tutorial sessions, projects and field work.
- b. Instructors must inform students in writing of the grading system to be used in the course. The written statement must include the relative weight which will be given to class and/or laboratory participation, examinations, tests, written assignments and other means of evaluation (see academic regulation 19). Changes in this system must also be made available to students in writing. A copy of the grading system and any subsequent changes to it must be placed on file in the office of the Dean of the Faculty.

5. Undergraduate Rating, Grades and Quality Points

a. The rating of undergraduate students' performance is given as shown below in equivalent grades and quality points. There are no recognized percentage equivalents for these grades*.

Grades	Quality Points (Full Courses)	Quality Points (Half Courses)	Percentage Equivalents*	Rating		
A+ } A } A- }	4.000 4.000 3.667	2.000 2.000 1.835	80-100	Excellent		
B+ } B } B- }	3.333 3.000 2.667	1.665 1.500 1.335			70-79	Good
C+ } C } C- }	2.333 2.000 1.500	1.165 1.000 0.750				
D	1.000	0.500	50-59	Marginal Pass		
F	.000	.000	0-49	Failure or withdrawal after deadline (see No. 16)		

* These percentage equivalents are provided solely to assist other institutions in interpreting letter grades. They have no internal application.

b. The following grades shall be given when appropriate but will not be calculated in the quality point average:

Aegrotat standing (see No. 12)	AE
Authorized withdrawal from course (see No. 16-a)	W

- c. The minimum passing grade is D. Students should be aware that a grade of D (or the equivalent) is not ordinarily transferable as a credit either to or from other educational institutions.
- d. To receive a passing grade in a course, students normally must complete all course requirements, including all tests and examinations.
- e. Students who have not completed the work of the course may, in special circumstances and with the approval of the Dean of the Faculty, be given the temporary grade IC (incomplete) by the instructor; if no final grade has been submitted to the Registrar by the instructor within six weeks of the last day of classes in the semester, a grade of F will automatically be substituted for IC, except in the following cases:
 - (i) Honors level courses; and
 - (ii) Graduate level courses.

In these cases the IC will not automatically be converted to the grade of F until the end of the semester following the one in which the IC grade was given;

- (iii) Practice Teaching [EDU 591.1(.2), 592.1(.2) and 593.1(.2)]; and
- (iv) Masters' Theses/Projects.

In these cases the IC remains until the work is completed or the time limits for registration in the program expire.

f. The maximum time limit permitted for a change of final grade is six months from the last day of classes in the semester. Except for the changing of an approved "incomplete" to a real grade, a grade change must be approved by the Dean of the Faculty in which the course is offered.

g. Once a final grade has been determined, supplementary examinations or any additional assignments for the purpose of changing that grade are not permitted.

6. Quality Point Average

- a. A quality point average (abbreviation: qpa) is used to determine the standard of a student's performance for the academic year.
- b. Each letter grade is given a quality point equivalent as described in 5-a above.
- c. The quality point average is computed at the end of each academic year by dividing the total number of quality points obtained that year by the total number of credits taken.
- d. The cumulative quality point average (abbreviation: cqpa) is based upon all courses taken for credit in any Faculty at Saint Mary's after 1 September 1974 other than those for which grades AE, W, or WP have been given. Courses for which grades of F or WF have been given are included in the calculation of the quality point average even if such courses are subsequently retaken and passed.
- e. Grades for courses taken at other institutions for which advanced standing or transfer credit is given are not included in calculations for a quality point average, a cumulative quality point average, or in calculations for determining awards and distinctions.

7. Standing Required

- a. The regulations governing continuance in a program are those in effect at the time students first register in that program, except as provided under (b) below.
- b. In the case of students readmitted after an absence of five or more years, or after having been required to withdraw for academic weakness, or in the case of students transferring to a different academic program, the regulations in force at the time of readmission or transfer apply. In addition, the Dean may attach specific and binding conditions to the students' performance to assure that the normal standards of the degree requirements are met.

c. Satisfactory Standing

(i) To qualify for a Bachelor's degree in Arts, Science, or Commerce, a student must achieve a cumulative quality point average of at least 1.50. For this reason, performance in any individual course below the grade of C minus or a quality point average below 1.50 in any given semester is considered unsatisfactory.

(ii) To qualify for a Bachelor's degree in Education, students are required to maintain a quality point average of at least 2.00. For individual courses the pass mark is D, with the exception of Practice Teaching I, II, and III for which the pass mark is C. No supplementary examinations are provided.

(iii) To earn a Master's degree, a student must achieve a cumulative quality point average of at least 3.00. For this reason, performance in any individual course below the grade of B or a quality point average below 3.00 in any given semester is considered unsatisfactory (see paragraph 6 in Section 3 of this Academic Calendar).

d. Probationary Status

Probationary status is incurred:

(i) if, at the end of any academic year, full-time students have not attained a quality point average of 1.50 for that year;

(ii) if, after taking any five consecutive full courses or half-course equivalents (5.0), part-time students have not attained a quality point average of 1.50;

(iii) on readmission after being required to withdraw because of academic weakness [see (h) below];

(iv) if students are required to confer with their academic advisor and fail to do so or fail to make appropriate efforts to resolve problems which are affecting their academic performance. See academic regulations 3-b and 3-c above.

e. Removal of Probationary Status

(i) Full-time students with probationary status can have that status removed only by achieving a quality point average of 1.50 during their first year of full-time study after being placed on probation.

(ii) Part-time students with probationary status can have that status removed only by achieving a quality point average of 1.50 in respect of the first five full courses or half-course equivalents (5.0) taken after being placed on probation.

Notes:

(a) Transfer to a different Faculty does not remove probationary status.

(b) Unless the permission of the Dean of the Faculty has been obtained in advance, courses taken at another educational institution cannot be used to remove probationary status.

f. Required Academic Counselling

Students whose academic performance at the University is unsatisfactory or who fall into one of the categories as described in regulation 3-c above will be required to confer with their academic advisor.

g. Required Withdrawal

Withdrawal from the University for a minimum of one calendar year is required:

(i) if students fail to obtain a 1.50 quality point average during the first year of full-time study after being placed on probation; or

(ii) if students on academic probation fail to comply with any specific formal conditions governing their probation.

Students who are required to withdraw from the University may be denied the right to return to Saint Mary's.

Note: No credit will be given for any course(s) taken at another institution during the year of required withdrawal.

h. Admission after Required Withdrawal

(i) Students who are not eligible for readmission to their former institution are normally not admissible to Saint Mary's University.

(ii) Students who have been required to withdraw, and who wish subsequently to be readmitted, must apply to the Admissions Office by the deadlines stipulated above in Admissions regulation 1-a.

(iii) If readmitted, students will be placed on academic probation and must fulfil the terms outlined in their letter of readmission. Students failing to satisfy all the terms of readmission may be denied the right to further registration. (See also regulation 7-b.)

Note: Students are advised that all communications concerning probationary status and dismissal are sent to the permanent address on file in the Registrar's Office. Therefore students are urged to ensure that this address is both accurate and complete.

8. Examinations

a. At the end of a semester, at the discretion of the Department concerned, a formal examination may be held during the special periods set aside for this purpose in December and in April.

b. All formal examinations held during the above periods are to be scheduled by the Registrar. The maximum time allowed for each examination is three hours.

c. In a course for which a formal examination during the special period is not being held, no test or examination is permitted in the semester's last two weeks of classes. In exceptional circumstances, in-class tests may be permitted by the Vice-President (Academic and Research) on the recommendation of the Dean of the Faculty concerned.

d. (i) In a two-semester course, no single test given in a regularly scheduled class period (50 minutes or 75 minutes) shall contribute more than 20% of the overall evaluation for that course.

(ii) In a one-semester course, no single test given in a regularly scheduled class period (50 minutes or 75 minutes) shall contribute more than 35% of the overall evaluation for that course.

e. To be eligible to write any type of test or examination in any course, students must be properly registered in that course. Students must write all such tests or examinations at the designated times and in the designated places.

f. Students are responsible for knowing the date, time and location for writing each of their formal examinations. Students are required to present their valid Saint Mary's University student identification cards at all tests and examinations for possible verification of their signatures.

g. Supplementary examinations are not offered.

9. Evaluations

a. At the end of each semester, instructors will submit to the Registrar, on the forms provided, their evaluations of all students registered in their courses. For full courses (i.e., designated .0), interim grades will be submitted at the end of the first semester and final grades at the end of the academic year. The timeframes for the submission of mid-year and final grades to the Registrar are:

In the case of courses in which no formal examination was scheduled by the Registrar within the period designated by Senate for formal examinations, one week from the beginning of the examination period; and in the case of courses in which formal examinations were scheduled by the Registrar within the period designated by Senate for such examinations, five days from the day on which the examination was written.

b. First semester Grade Report forms are available for pick-up at the beginning of the second semester. They are not mailed.

c. As soon as possible after the conclusion of the academic year and each summer session, Grade Report forms showing the final grades for all courses in which students were registered are mailed to the students' permanent addresses, unless an alternate address card has been duly filed with the Registrar by the advertised deadline.

d. In the case of courses taught over the first three weeks of a summer session, final grades will be posted outside the Registrar's Office as soon as they have been received and processed. Grade Report forms will be processed and mailed as soon as possible after the completion of that summer session. Transcript requests for such courses cannot be honored until a particular summer session has been completed in its entirety.

e. Final grades are withheld from students who have money owing to the University, or who have either money or books owing the University Library system.

f. Grades given at the end of a semester shall not be made known to students except by the Registrar.

g. Grade changes must be approved by the Dean of the Faculty in which the course is offered before they can be accepted for processing by the Registrar. Reason(s) for the change(s) is required at the time of submission.

10. Special Examinations

a. A special examination may be arranged:

(i) if students present a legitimate reason, acceptable to the Dean of the Faculty, for not having taken a final examination on the scheduled date; or

(ii) if students have failed a course in exceptional circumstances which the instructor and Dean of the Faculty are satisfied justify a special examination being given; or

(iii) if the Committee on Academic Appeals has made a judgment that a special examination be given.

b. The standard grading system (see academic regulation 4) will be followed.

c. Special examinations will be scheduled by the Registrar. Except in the case of a(iii) above, a processing fee of \$10.00 for one examination and \$20.00 for two or more examinations will be charged. This fee is to be paid the Registrar prior to the examination being written.

11. Academic Appeals

Students who have good reason to believe they have been subject to mistaken, improper or unjust treatment with respect to their academic work have the right to appeal to the Committee on Academic Appeals. An appeal must be based on solid evidence and not merely on injured feelings. This Committee's jurisdiction extends only to individuals currently enrolled at the University or enrolled during the previous academic year and required to withdraw, i.e., the Committee's jurisdiction does not apply to individuals whose application for admission to a program at the University has not been accepted. Appeals shall be governed by the following procedures:

a. Appealing of Final Grades

The only grades that may be appealed are official final grades. Students should be aware that when a grade appeal is launched, the grade can be raised, lowered, or remain unchanged.

(i) Students who wish to appeal a grade must first consult the instructor concerned within one month of receiving the grade and, if unsatisfied, should then consult the appropriate Chairperson and Dean. If the problem is still unresolved, students may forward their appeal to the Committee on Academic Appeals. This must be done in writing, through the Registrar, within three months from the last day of the semester in which the course is taken.

(ii) It is the responsibility of students and instructors to provide the Committee with all relevant available material on which the grade was based, such as examinations, tests, exercises, papers, reports and other graded material.

(iii) The Committee will normally appoint two qualified examiners to review the evidence presented and reconsider the grade. The examiners will submit their report and the evidence reviewed to the Chairperson of the Committee.

(iv) On the appeal for a change of grade, the decision of the Committee shall be final.

b. Other Appeals

On appeals other than those for a change of grade, the procedures shall be as follows:

(i) Normally within one month of the event or the decision being received by students, they shall submit their appeal in writing and direct it to the Committee on Academic Appeals through the Registrar.

(ii) The Chairperson of the Committee on Academic Appeals shall forward a copy of the appeal to the Dean of the appropriate Faculty, and, if relevant, to the Chairperson of the Department and the instructor.

c. Decision

Within one month, if possible, of receiving any appeal under (a) or (b) above, the Committee shall render and communicate its decision through the Registrar to all parties concerned. Pending possible further appeal, the Committee will retain the evidence presented to it for a period of six weeks after rendering its decision.

d. Appeal of Committee's Decision

Except in the case of an appeal for a change of grade, students shall have the right to appeal an adverse decision to the Executive Committee of Senate. Such an appeal shall be governed by the following procedures.

(i) Within one month of receiving the decision of the Committee, students shall submit their appeal in writing to the Secretary of Senate who shall forward the appeal together with all previously considered evidence to the Executive Committee of Senate for its consideration.

(ii) Within one month of receiving the appeal, the Executive Committee shall render and communicate its decision through the Secretary of Senate to the Registrar, who in turn shall communicate the decision to the student and to the Committee on Academic Appeals and take any further required action.

(iii) The decision of the Executive Committee shall be final.

e. Fee

All appeals to the Committee on Academic Appeals must be accompanied by a payment of a \$25.00 fee. Further appeal under (d) above requires an additional payment of \$25.00. In the event of a decision favorable to the appellant, all payments will be refunded.

Notes:

(a) Appellants may ask or be asked to appear before the committee(s) hearing their appeal.

(b) Members of a committee cannot participate in the hearing of an appeal arising from an action to which they were a party.

12. Credit without Final Examination

Students who, for medical or compassionate reasons, have been unable to write the final examination in a course but who have satisfactorily completed the other requirements, may apply to the Dean of the Faculty for a credit in that course without examination. They must support their request with adequate evidence. If the Dean permits the request to go forward, instructors involved will be asked to assign an estimated final grade. If the instructors judge that the student should be given credit for the course but are unable to determine a precise quality point grade, then they will assign the grade of AE (aegrotat). This grade will not be included in computing the quality point average. Students may apply for aegrotat standing for a maximum of five courses during their undergraduate program. This grade of AE is available only as a final grade and therefore cannot be awarded at mid-year for full credit courses, i.e., those designated .0.

13. Course Changes

a. At the beginning of a course, a period of time is provided for students to alter their registration without the change being noted on their permanent records. During this period, a course or section may be added, dropped or exchanged for another course or section. Any change authorized after the deadlines stipulated below, regardless of its effective date, will result in the course(s) being retained permanently on the students' records.

b. The period of time provided from the first day of classes is:

(i) one week for a half or full credit course during an academic year; and

(ii) three days for a half or full credit course taken during a summer session.

c. Changes can be effected only by filing with the Registrar a Change of Registration form, indicating the desired change(s) and signed as follows:

(i) in the case of a change of section only (e.g., EGL 201.2A to EGL 201.2D), by the Chairperson of the Department offering the course.

(ii) in a case involving the adding, dropping or changing of an unsectioned course(s) (e.g., adding or dropping HIS 340.0, or changing from ANT 340.0 to POL 350.0), by the Chairperson of the Department in which students are majoring, or (if no major has been declared) by the Dean of the students' Faculty.

(iii) in a case involving both courses and sections (e.g., adding or dropping EGL 201.1A, or changing from EGL 201.1A to POL 200.0C), by the Chairperson of the Departments offering the sectioned course(s), and the Chairperson of the Department in which students are majoring, or (if no major has been declared) by the Dean of the students' Faculty.

14. Declaration or Change of Major Area of Concentration

a. in order to declare or change a major area of concentration, students must file a Change of Registration form with the Registrar. This form must have been signed by the Chairperson of the Department in which the students intend to major. Students are

strongly urged to declare their major areas of concentration before registering for their final ten credits (10.0) and before 1 May.

Declarations filed from 1 May to 15 September will not affect the student's category and priority for registration purposes.

b. The regulations governing the major program will be those in effect at the time of declaration, or change, of major.

c. Students are advised that general regulations governing majors are found below in academic regulations 20 and 21; specific Faculty regulations are found in Section 3 of this Calendar; and specific departmental and subject area regulations are found in the relevant parts of Section 5.

d. Students must file a Change of Registration form indicating the dropping of their major and/or minor if they are no longer pursuing that major and/or minor. Otherwise it will be assumed to be valid and the student will be expected to complete the requirements in order to qualify for graduation.

15. Procedure for Changing Faculty

In order to register an official change of Faculty, students must file with the Registrar, a Change of Registration form which has been signed by the Dean of the Faculty into which the students intend to transfer. Upon receipt of such a Change of Registration form, the Registrar, on the advice of the Dean of the Faculty, will inform the students of the number of credits being transferred to their new academic program. Students should be aware that a change of Faculty is not automatic and cannot readily be processed during registration periods; therefore students are strongly encouraged to file for a change of faculty by 1 May. Changes made from 1 May to 15 September will not affect the student's category and priority for registration purposes.

Students on probation at the time of authorized transfer of Faculty automatically remain on probation.

16. Withdrawing from a Course

a. In the case of half-credit courses, after the time limits indicated in 13-b above have expired, and provided the half-course still has one quarter of the instruction time remaining, students may withdraw from the course. In the case of full credit courses, after the time limits indicated in 13-b above have expired, and providing the tenth day of classes in the second semester has not passed, students may withdraw from the course. In such cases a grade of W will automatically be awarded. Students withdrawing from a course after these time limits automatically receive a grade of F.

b. A student who registers for a course and does not withdraw is considered to be taking the course, and if no grade is assigned by the instructor, a grade of F will be recorded. It is not sufficient to cease to attend class and not complete the tuition payment for a course.

c. For purposes of registration sections of courses are considered to be individual courses.

d. It is strongly recommended that students consult with their assigned advisor prior to withdrawing from a course(s). (See regulation 3 for further details.)

Notes:

(a) All withdrawals must be made officially on Change of Registration forms available in the Registrar's Office. Should it not be possible for students to obtain such a form, a letter of withdrawal can be forwarded to the Registrar. This must include the student's name, address, Saint Mary's I.D. number, and course(s) with section number(s) (if applicable) involved in the withdrawal.

(b) Students should note that the deadlines for academic withdrawal differ from those for financial adjustment and possible refund of fees.

17. Retaking a Course

a. Students may retake any course with the prior written permission of their faculty advisors. Although all grades, including failing grades, count in computing quality points for the year and for the degree, each course counts only once as a credit in the academic program.

b. In the cases where courses have been renumbered, changed in level, or where a full credit course has been split into two half-courses or vice versa, a student who received credit recognition for the original course is not entitled to repeat the course in its new format or on its new level for additional credit recognition.

c. Students will not ordinarily be given credit for a course taken at another educational institution which they have already taken and failed at Saint Mary's.

d. In all instances in which a student is seeking to repeat a course for which credit has already been awarded (through advanced standing, transferring or successful completion at Saint Mary's) permission is to be sought on a special form available from the Registrar. This form requires the authorization of the Dean of the Faculty in which the student is enrolled.

18. Withdrawal for Academic Reasons

Students whose participation, work or progress is deemed to be unsatisfactory may have their registration terminated and be denied the right to continue at the University by the Dean of their Faculty.

19. Academic Responsibility

a. University students are expected to have a reasonable measure of self-discipline and maturity. While the University's teaching resources are available for help and guidance, and instructors and staff will make every effort to assist students with academic or other problems, the final responsibility for success or failure in academic studies rests with the students.

At times there may be considerable pressure to achieve high grades. One may be tempted to obtain grades by dishonest means. The integrity of the University and of the degrees it awards are compromised by practices such as cheating and plagiarism. The University does not condone such acts under any circumstances and will take appropriate disciplinary action.

b. Plagiarism

Plagiarism is the presentation of words, ideas or techniques of another as one's own. Reference to or appropriation of another's work whether by direct quotation or paraphrase must be acknowledged by proper citation. When in doubt, one should seek the advice of the instructor before submitting the work. The above definition of plagiarism is not restricted to literary works and applies to all forms of information or ideas that belong to another (e.g., computer programs, mathematical solutions, scientific experiments, graphical images, or data).

Submission of the same piece of work for credit in more than one course is usually not permitted. The approval of the instructors of the courses involved must be obtained in advance.

c. Examinations

Cheating is the attempt to secure a grade by unethical means. Knowingly assisting someone to cheat is itself cheating. Cheating would include such practices as

- (i) arranging for someone to impersonate oneself at an examination or the impersonation of another at an examination;
- (ii) requesting, providing or accepting unauthorized assistance on a test;
- (iii) possession of unauthorized materials at a test;
- (iv) unauthorized procurement of a copy of an exam.

Anyone observed committing one of the above offences is presumed guilty of cheating unless the student can establish his/her innocence.

d. Other

It is an offence to falsify any academic record or to use a falsified record.

It is an offence to tamper with University library materials or computer system resources in any way which would deprive others of their use. The unauthorized copying, reading or use of programs or files are not permitted.

e. Sanctions

Usually, on the first offence of cheating or plagiarism a mark of zero will be assigned to the work in question. The student will not be permitted to withdraw from the course. The instructor will inform the student, Deans of the Faculty in which the student is registered and/or the Faculty in which the course is taught, and Registrar, in writing, of the offence.

In the event of a second offence, or serious first offence, the University may impose one or more of the following sanctions:

- (i) a grade of F in the course;
- (ii) a record of the offence on the student's transcript;
- (iii) suspension from the University;
- (iv) dismissal from the University;
- (v) revocation of degrees, diplomas or certificates.

Withdrawal from a course prior to the discovery of the offence does not restrict the University's right to take action.

20. Advanced Standing: University and Other Post-Secondary Institutions

After an official transcript has been received by the Registrar, and providing the students have identified the subject area(s) in which they intend to major, students transferring from other recognized universities or post-secondary institutions to an academic program at Saint Mary's may be given advanced standing credit, if appropriate, in consultation with the Dean of the Faculty. To obtain a first baccalaureate degree or a diploma, they must fulfill all requirements for that degree or diploma and successfully complete a minimum of seven credits (7.0) at Saint Mary's, of which a minimum of three credits (3.0) must be in the students' major subject or area of concentration. In the case of students in an honors program, the minimum number of credits required at Saint Mary's is twelve (12.0), of which a minimum of eight credits (8.0) must be in the subject(s) of honors.

Notes:

- (a) A request for advanced standing will not be considered after one year from the date of the students' first registration in an academic program at Saint Mary's.
- (b) Advanced standing will be given only for courses with satisfactory grades as required by the relevant Saint Mary's program. Grades of D or lower are not acceptable for undergraduate programs; grades of B- or lower for graduate programs.
- (c) Credit will not automatically be recognized for university courses completed more than ten (10) years prior to the students' return to university study. The Dean's assessment of the number of credits that students must complete to satisfy their degree requirements is final.

For further information on credit granted for work done prior to admission to Saint Mary's, see Admission Requirements.

21. Transfer Credit

a. While registered at Saint Mary's University, students may be authorized by the appropriate Dean to take a course(s) at another academic institution for transfer credit to an academic program at Saint Mary's. Students applying for such permission must provide the Registrar with a full description of the course(s) involved. The description from the academic calendar will suffice. The Registrar will notify the students of the Dean's decision and, if permission has been granted, will forward a Letter of Permission directly to the institution at which students are permitted to study. Students are responsible for completing the proper application and registration procedures at the designated institution. These same procedures apply to summer session courses.

b. Students who are permitted to take a course(s) off campus by means of a Letter of Permission are responsible for paying their fees to the institution at which they are taking the course(s).

c. In cases where the University has entered into a special arrangement with another educational institution for shared instruction in a particular program, the normal registration process will be followed.

d. In the case of correspondence courses, the normal procedures for transfer credits are to be followed. In addition, proof must be presented that the institution offering the correspondence course also recognizes it as a credit toward an academic program.

e. Before transfer credit(s) can be considered, students must have the institution concerned send to the Registrar an official transcript of the work undertaken.

f. For undergraduate programs, no transfer credit will be given for courses with grades of D (or the equivalent in numeric terms, namely 50-59). Students should also note that in some departments a grade of C or higher is required if the course is to be considered as part of the students' major or honors program. For graduate programs, no transfer credit will be given for courses with grades below B (or the equivalent).

g. Except under the above provisions, students may not register concurrently at Saint Mary's and at another academic institution. Should a student's concurrent registration be discovered, the University, on the advice of the Dean of the Faculty concerned, reserves the right to deny the student any credit(s) for the course(s) taken at another institution and to cancel that student's acceptance and/or registration at Saint Mary's University.

22. Advanced Standing Credit by Examination for Undergraduate Degree Programs

Such credits are no longer available.

23. Students Whose First Language Is Not English

In the majority of cases the primary language of instruction at Saint Mary's University is English. Therefore, students for whom English is not their first language and who do not have the facility to communicate well, both verbally and in writing, are strongly encouraged to register for ESL 100.0 or other English language training prior to registering in their academic program at the University.

24. Requirements of Two Academic Programs (Dual Program)

a. If students are endeavouring to satisfy the requirements of two academic programs at the University, it may not be possible to satisfy the requirements of both of these within the minimum number of credits stipulated for either or both of them. The two programs include, but are not limited to, dual degree programs; double major/ areas of concentration; major in one subject and honors in another; and degree and certificate programs such as the Criminology Certificate Program. Students are advised that they must meet the specific requirements of each portion of their academic program or programs in order to qualify for graduation. Also see registration regulation 6 below.

b. It is possible to satisfy simultaneously the requirements for two baccalaureate degrees in the Faculties of Arts, Commerce or Science. To formally declare their status as dual degree, students must complete the appropriate form in the Registrar's Office and have it signed by each appropriate Dean. Prior to signing this form, each Dean will assess the students' university course work to date and inform the Registrar in writing of other general requirements that must be completed in order to earn a degree within that Faculty. The Registrar, in turn, will officially notify the student. Specific program requirements should be discussed with the Chairperson of the Department of the students' major. Dual degree students will receive both of their degrees at the same Convocation. Students who complete the requirement for only one degree and who graduate are considered to have discontinued the second degree program. Should they subsequently wish to resume their studies in the second faculty, they must reapply for admission and, if admitted, are considered to be pursuing a second undergraduate degree and hence required to follow the appropriate regulations and guidelines.

25. Second Undergraduate Degree

a. Students who hold a first baccalaureate degree from Saint Mary's University may earn a second baccalaureate degree in a different Faculty by completing all the requirements for that degree, as specified by the Dean of that Faculty. In so doing, they must obtain at least five additional credits (5.0) and may not use the same major program or concentration to complete the requirements for both degrees. All of the credits required for the second baccalaureate degree must be taken at Saint Mary's.

b. Students who hold a first baccalaureate degree from a post-secondary institution other than Saint Mary's may obtain a second baccalaureate degree in a different Faculty by completing all of the requirements for that degree, as specified by the Dean of that Faculty. In so doing they must obtain credit for the minimum number of credits at Saint Mary's as stipulated in regulation 20 and may not use the same major program or concentration to meet the requirements for both degrees. All of the courses required for a second baccalaureate degree must be taken at Saint Mary's.

c. All students who wish to register in a program leading to a second baccalaureate degree must complete the appropriate application in the Admissions Office at least three months prior to the term in which they expect to enter the second degree program. The admission of students who earned their first degree at a post-secondary institution other than Saint Mary's prior to September 1974 must be approved by the appropriate Dean, who may attach specific and binding conditions to the students' acceptance and academic performance.

26. Honors Equivalency: Certificate of Honors Standing

a. The Certificate of Honors Standing was established by the University Senate to provide a means of granting appropriate recognition to those Saint Mary's graduates who did not follow the regular honors program of the University but have subsequently completed all requirements for graduation in such a program, and having already received a degree, cannot have a second undergraduate degree in the same Faculty conferred upon them. To

earn the Certificate of Honors Equivalency, students must complete all the requirements for the appropriate honors program.

b. Students who have earned a first undergraduate degree from another post-secondary institution are not eligible for the Certificate of Honors Equivalency but may enroll as upgrading students if they wish to take additional courses to qualify for admission to a Master's degree program.

27. Convocation Dates, Degrees and Diplomas

a. Students must file an Application for Graduation from a specific program with the Registrar by the dates stipulated in the University Calendar of Events and pay the graduation fee. This fee does *not* have to be paid when the application is filed. If, at the discretion of the Registrar, there are circumstances which warrant waiving the stipulated deadline for graduation application, the student will be assessed twice the normal graduation fee or permitted to wait until the next Convocation in order to graduate. If during the course of the students' final academic year at the University, a change is made in the Faculty or in the type of program in which the student is enrolled (i.e., from honors to major), it will be necessary for the student to reapply for graduation, and the above-noted deadlines will apply as will the Registrar's discretionary authority.

b. Normally there are two Convocations annually, in May and in October. Once all requirements are completed, students must graduate at the next Convocation.

c. Students are required to obtain the academic regalia appropriate to their academic program at the times, dates and locations indicated in the *Graduation Booklet* which is mailed to all students who have filed an application for graduation and who qualify as potential graduates. This mailing occurs approximately six weeks prior to graduation. It is the students' responsibility to ensure that they have received a copy of the publication.

Students will not be permitted to convocate if they are not attired in the academic regalia appropriate to their academic program at Saint Mary's University.

d. The parchment shows the academic designation (i.e., degree, diploma, or certificate) which has been conferred but not the major area of concentration. This, however, is noted in the students' official academic record and hence appears on any transcript issued, whether official or unofficial. After Convocation, a new parchment can be prepared for any student who graduates with a distinction. These parchments carry the notation concerning the distinction. Please write to the Registrar within three weeks of Convocation to request a parchment showing the academic distinction earned.

e. The University grants the following degrees:

Bachelor of Arts	B.A.
Bachelor of Commerce	B.Comm.
Bachelor of Education	B.Ed.
Bachelor of Education (Vocational Education)	B.Ed.(Voc.)
Bachelor of Education (in Association with The Nova Scotia Teachers College)	B.Ed.(N.S.T.C.)
Bachelor of Science	B.Sc.
Master of Arts	M.A.
Master of Business Administration	M.B.A.
Master of Education	M.Ed.
Master of Science	M.Sc.
Doctor of Civil Law, Honoris Causa	D.C.L.
Doctor of Commerce, Honoris Causa	D.Comm.
Doctor of Laws, Honoris Causa	D.L.
Doctor of Letters, Honoris Causa	D.Litt.
Doctor of Science, Honoris Causa	D.Sc.

The University grants the following diplomas and certificates:

Certificate of Honors Standing	-
Co-operative Education Certificate	-
Criminology Certificate	C.C.P.
Diploma in Engineering	D.Egn.

f. Details of the University's policies on the reissuing of parchments are available from the Registrar.

g. Students whose accounts are in arrears may be denied the right to graduate until the debt is cleared.

28. Degree or Diploma in Absentia

Provided that candidates have officially notified the Registrar at least ten days in advance that they will not be present at Convocation, they may receive their degrees or diplomas in absentia. Failure to give such notification will result in a \$10.00 penalty which must be paid, in addition to the graduation fee, before the parchment will be released.

29. Distinctions

a. In the general undergraduate degree and diploma program, distinctions are awarded to successful candidates on the basis of the following quality point averages in respect of the courses specified in (b) below.

Program:	Quality Point Average	Distinction: Diploma in Engineering
B.A., B.Sc., & B.Comm.		
summa cum laude	3.91 - 4.00	With greatest distinction
magna cum laude	3.76 - 3.90	With great distinction
cum laude	3.50 - 3.75	With distinction

b. The above-noted quality point averages will be calculated on the basis of the highest grades attained in twelve credits (12.0) taken at Saint Mary's, including the last ten credits (10.0) the students' program. The only exceptions to this are (a) in the Diploma in Engineering program where the minimum number will be ten credits (10.0); or (b) when the student has earned the equivalent of five credits (5.0) at Centre International d'Etudes Françaises (C.I.D.E.F.) de l'Université Catholique de l'Ouest, Angers, France; and other exchange programs which Saint Mary's University has entered into formally with non-Canadian post-secondary institutions. These include, but are not limited to, the University of Baghdad, The Bermuda College, Shandong Teachers University, Beijing Teachers College, the Nova Scotia/New England Exchange Program; and also the Université de Quebec. Students who have taken fewer than twelve credits (12.0) at Saint Mary's are not eligible for distinctions except as noted above for the Diploma in Engineering program and the exchange programs.

c. No distinctions are awarded in the Bachelor of Education program, nor in graduate and certificate programs.

d. Students whose academic records contain a grade of F or WF will not be awarded a distinction except upon the recommendation of the appropriate Chairperson and Dean of the Faculty, and with the approval of Senate.

e. Bachelor's degree with Honors: A Bachelor's degree with Honors will be awarded with the distinction "First Class" when the cumulative quality point average for seventeen credits (17.0) taken at Saint Mary's, including the last fifteen (15.0) in the student's program is at least 3.60. Otherwise the Honors degree will be awarded without special distinction.

30. University Medals

At each Spring Convocation the following are presented:

a. **Governor General's Gold and Silver Academic Medals**
These medals are awarded annually to the graduate (gold) and the undergraduate (silver) deemed to be the top candidates at their respective levels of study.

b. Faculty and Division Medals

In the Faculties of Arts, Science, Commerce, and Education, and in the Division of Engineering, medals are awarded to the undergraduate students with the highest cumulative quality point average. Medals are also presented to the students with the highest cumulative quality point averages in the M.A.(I.D.S.); M.Sc.(Applied Psychology); M.B.A., and the M.A.(Education)/M.Ed. graduate programs.

Notes:

(a) In the case of undergraduate degrees and diplomas, the cumulative quality point averages will be calculated on the same basis as that for determining distinctions (see academic regulation 29). In the case of a tie, Senate will determine the recipient of the medal. In the case of graduate degrees, students' entire graduate academic records will be considered.

(b) Students who graduate at Fall Convocation will be considered for medals at the next Spring Convocation.

c. **The Reverend William A. Stewart, S.J., Medal for Excellence in Teaching**

In 1983, the Alumni Association, with the cooperation of the Faculty Union and the Students' Representative Council, established the Reverend William A. Stewart, S.J., Medal for Excellence in Teaching. This award is open to faculty members who have made an extraordinary contribution to the education of Saint Mary's students through teaching in the University's tradition of quality undergraduate education. Nominations are invited from alumni, students, and faculty members. This medal is presented at Convocation together with a cheque for \$1,000. Previous winners of this prestigious award are:

- 1983 Professor David Hope (Accounting)
- 1984 Professor Dermot Mulrooney (Engineering)
- 1985 Dr. David Perrier (Sociology)
- 1986 Dr. John Young (Chemistry)
- 1987 Professor E. McBride (Political Science)
- 1988 Dr. Jack Ginsburg (Chemistry)
- 1989 Dr. Peter March (Philosophy)
- 1990 Dr. Andrew Seaman (English)
- 1991 Dr. Phil Street (Psychology)
- 1992 Dr. Francis Phillips (Education)
- 1993 Dr. Janet Baker (English)

President's Award for Excellence in Research

Established in 1989, this annual award honors outstanding research conducted by a full-time faculty member who has been employed at the University for at least three years. Presentation of the award takes place at Convocation. A detailed nomination procedure has been delineated whereby each Dean of Faculty may select one member of his Faculty who has been nominated by the 15th October, and whose candidacy he is prepared to support. Other sponsors must be researchers, at least two of whom must be from outside Saint Mary's University. The award is adjudicated by the Senate Research Committee, which has the authority to decide which nominee, if any, is deserving of the award. The selection criteria consists of two component parts, namely productivity, whereby the nominee must have a record of continued exceptional contribution to research/scholarship; and secondly, recognition. The nominee must have attained national or international recognition as an authority in a major field of knowledge. The President's Award for Excellence in Research consists of a framed certificate presented at Convocation together with a cheque for \$1,000. Previous winners of this significant award are:

- 1989 Dr. George Mitchell (Astronomy)
- 1990 Dr. John Chadwick-Jones (Psychology)
- 1991 Dr. John Reid (History/Atlantic Canada Studies)
- 1992 Dr. Jaroslav Dostal (Geology)
- 1993 Dr. Arthur Monahan (Philosophy)

31. Dean's List for Undergraduate Programs

a. At the end of each academic year, full-time students whose quality point average indicates high academic achievement will be placed on the Dean's List. To qualify for this recognition, students must have taken at least five credits (5.0) during that academic year and have achieved a minimum quality point average of 3.50.

b. For part-time students to qualify for placement on the Dean's List, they must have taken and completed at least five credits (5.0) while registered as a part-time student as defined in academic regulation 1-a. They must have achieved a minimum quality point average of 3.50 on these credits. A minimum of five of these credits (5.0) must be from Saint Mary's University. After a part-time student has been placed on the Dean's List, they must take at least five additional credits (5.0) to qualify again for placement on the Dean's List. Placement on the Dean's List will be assessed at the end of each academic year and recorded on students' transcripts. Because the Student Information System cannot easily identify those students who qualify for placement on the Dean's List under this part-time criteria, students must apply for placement on the Dean's List. Application forms are available from the Registrar's Office and can only be filed after final marks have been processed and officially received by the student.

32. Students' Academic Records and Transcripts

a. Students' academic records, including their official University files, are the property of the University. Access to those records and release of information from them will be governed by the University's policies and by the laws of the province and the country.

b. Students' transcripts of records are privileged information and to that end will not be released by the Registrar to those outside the University without the prior written permission of the students. As required by their appointment, academic administrators within the University have access to students' complete academic records.

c. To request a transcript, students must complete the appropriate form obtainable from the Registrar or mail or fax a letter of request to the Records Office. It is not possible to accept a transcript request over the telephone. Transcript requests are processed strictly in the order in which they are received. Although the normal processing time for both official and unofficial transcripts is the same and is approximately ten working days, additional time will be required at peak periods. Transcripts include the following information:

- (i) Faculty, program and area of concentration;
- (ii) advanced standing and/or transfer credits;
- (iii) grades (failing as well as passing) in respect of all academic work attempted while registered at Saint Mary's.

d. Where appropriate, reference is also made to:

- (i) placement and continuance on, and removal of, academic probation;
- (ii) requirement to withdraw for academic weakness, or for non-academic (i.e., disciplinary) reasons;
- (iii) distinctions and scholarships, including placement on the Dean's List.

e. The cost is \$2.00 for the first copy of the transcript and \$1.00 for each copy made at the same time. Payment must be received before the transcript is issued. Official transcripts are those forwarded directly from the Registrar's Office to an official third party. If detailed course descriptions are also required, there will be an additional fee of \$1.00 per description. Students whose accounts are in arrears will be denied transcripts until the debt is cleared.

f. Upon prepayment, the University is prepared to fax a transcript which has been ordered in the official manner. Students are advised to check beforehand with the receiving institution to ensure that a transcript received by fax will be acceptable. The prepaid fees for faxing a transcript are: \$7.00 - Halifax Metropolitan Area (including Bedford); \$10.00 - elsewhere in Canada; and \$20.00 - outside of Canada. Transcripts can also be forwarded by courier if the requisite fee has been prepaid and complete instructions have been provided. Transcripts will be faxed or couriered only after the requisite fees have been received and processed at the University.

g. While the University takes every reasonable precaution to ensure the confidentiality of student records, students should be aware that the University is connected to a number of external electronic systems, and a number of academic and administrative offices have access, at least on a display basis, to the Student Information System.

Registration

1. Procedures

Registration procedures are the responsibility of the Registrar and will be made known to students, instructors and administrators in the official *Registration Book* published annually.

2. Registration in August

The procedures by which students register are currently under review and will be announced in the *Registration Book, 1994*.

3. Registration in September

The dates and times for registration in September will be announced in the *Registration Book, 1994*.

4. Late Registration

There is no provision for late registration. In very exceptional circumstances and providing the Dean of the student's Faculty concurs, a student may register late upon payment of the late registration fee.

5. Changes to Registration

In addition to having completed initial procedures, registration also consists of maintaining the accuracy of one's record by properly completing and filing "Change of Registration" forms for such items as changes in course and/or section numbers, address, telephone, name, and application for graduation. Only students can initiate these changes; only the Registrar can officially process these changes. Changes made in any other way, formally or informally, or solely by arrangement with an instructor, are not honored.

6. Registration in Dual Degree Programs

Students are advised that if they are concurrently registered for two degrees in a dual degree program, or registered for a degree and a certificate and/or diploma, and graduate with only one of these qualifications, they are assumed to have discontinued the second program. To reactivate their status, students must reapply for admission and qualify for the second program with the number of credits specified for that specific program.

7. Alterations in Timetable

The University reserves the right to change the times and the instructor(s) of a course from those advertised in the official Timetable.

8. Cancellation of Courses

If the number of students registered for a course is insufficient to warrant being offered, that course may be cancelled by the Dean of the Faculty. Other circumstances may also require the cancellation of a course or a section thereof by the Dean of the Faculty.

9. Addresses

During the academic year, all communications are mailed to local addresses. Therefore students are urged to keep theirs up-to-date in the Registrar's Office. During the summer months, communications are normally sent to the students' permanent addresses unless an alternate address card has been filed with the Registrar by the advertised deadline. Further details are available in the pamphlet entitled "Your Address and the Registrar's/Records Office". Copies can be obtained at the Registrar's Office (MM134).

10. Identification Cards

At the time of first registration, students are required to purchase an I.D. card at a cost of \$5.00. This card is issued upon presentation of the Registration form duly signed by the University cashier. It provides the student with a University identification which can be required for the writing of examinations and tests. (See academic regulation 8-f above.) The card also serves as a Library card, allows access to The Tower (Fitness and Recreation Centre), and enables students to qualify for discounts at some local business establishments.

Each subsequent year I.D. cards are validated during registration. There is no charge for validation. A replacement card costing \$10.00 for lost or damaged cards will be issued with a photocopy of the Registration form or with a form stamped "I.D. Issued". No cards will be issued without a Registration form.

Students who have not received their I.D. card during registration can obtain one at the Library.



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Section

3

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Faculty of Arts

Dr. Michael J. Larsen, Dean
Dr. Donald J. Naulls, Associate Dean

General Information

The Faculty of Arts offers programs of study leading to the degrees of Bachelor of Arts, Bachelor of Arts (Honors), and Master of Arts. The last of these is available in Atlantic Canada Studies, History, International Development Studies, and Philosophy. The graduate program in Sociology is currently not being offered.

The primary purpose of the Bachelor of Arts program is to provide a sound basic education in the liberal arts, combined with a study in some depth in at least one subject or other area of concentration. The honors program is designed for students of above-average ability, especially for those who intend to proceed to graduate work or who seek a professional career in the area of the honors subject(s). It requires greater specialization, and a higher level of performance, than the ordinary Bachelor of Arts program, and includes courses specially designed for honors students.

Proficiency in English

For the Bachelor's degree, students are expected to be able to express themselves clearly and cogently in the English language. To this end, instructors in all subjects attach great importance to clarity of expression and to the capacity to sustain a coherent argument (as well, of course, as to substance and relevance) in assessing written work. Students who are deficient in this area are therefore strongly advised to take immediate steps to remedy that deficiency, and in particular to use the compulsory courses in English to maximum advantage. Otherwise, however industrious they may be, and however extensive their knowledge, they may have difficulty in accumulating sufficiently high grades to qualify for graduation.

In a nation that is officially bilingual it should be unnecessary to point out the added advantage of acquiring a working knowledge of the French language.

Although the time required for study and review will vary from course to course, students should expect to devote a total of nine hours per course per week (including class periods and private study). Normally this will mean spending about two hours of private study time for each hour of class time. Term papers and lab exercises may require additional time. Students should note that some professors may include class attendance in their course grading scheme.

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Faculty of Arts – Undergraduate Programs

Requirements for the Degree of Bachelor of Arts

Summary of Requirements for a Bachelor of Arts Degree

- (1) Total number of credits required: 15.0 (see below - Arts regulation 1)
- (2) 300-level Arts credits required: 8.0 (see below - Arts regulation 1)
- (3) General Arts credits requirements: 5.0 (see below - Arts regulation 3)
- (4) Credits required for major: 6.0 - 8.0 (see below - Arts regulations 4 and 5; also departmental/subject area requirements, found in Section 5)
- (5) Cumulative quality point average for major: a minimum of 2.00 (see below - Arts regulation 7; also departmental/subject area requirements, found in Section 5)
- (6) Cumulative quality point average for graduation: a minimum of 1.50 [see academic regulation 7-c(ii)]

1. Subject to the regulations set forth in this Calendar, for the Bachelor of Arts degree students must complete the equivalent of fifteen credits (15.0). Courses which begin with zero (0) are designed to prepare students for entry level course work and will not be credited toward any degree, diploma, or certificate.

2. During the regular academic year, a full-time student will normally take five credits (5.0). In exceptional circumstances, students with a minimum quality point average of 3.00 in the previous year of full-time study may, at the discretion of the Dean, be permitted to take a sixth credit.

3. Students must complete:

a. English 201.1(2) and 202.1(2) or, at the discretion of the Chairperson of the English Department, an alternative credit in English;

the equivalent of one credit (1.0) from the following:

Philosophy 200 (Basic Logic) (No other Philosophy course satisfies this requirement.)

or **Mathematics**

or a language other than English

or a natural science (except Psychology);

the equivalent of one credit (1.0) from among the remaining **humanities** (Classics, History, Philosophy other than PHI 200.0, and Religious Studies); and

the equivalent of one credit (1.0) in at least two of the following **social sciences**: Anthropology, Economics, Geography, Political Science, Psychology, and Sociology.

Full-time students must attempt to fulfil these requirements in their first year. It is hoped that they will thereby be introduced to the basic skills required for university study, and be exposed at the introductory level to a variety of disciplines. Students with special interests can, with the Dean's permission, fulfil some of these in their second year.

Not later than the beginning of Year 2, students must declare the particular subject(s) in which they wish to major, or alternative areas of concentration. The following are recognized as Arts subjects in which it is possible to major: Anthropology, Classics, Economics, English, French, Geography, German, History, Latin, Mathematics, Philosophy, Political Science, Psychology, Religious Studies, Sociology and Spanish. In addition, Asian Studies, Atlantic Canada Studies, International Development Studies, and Women's Studies are four areas of concentration which are formally organized. Details are available from the individual program coordinators. Alternative areas, tailored to the needs and interests of particular students, may be devised and approved by the Dean of the Faculty. Once major subjects or areas of concentration have been declared, students' programs must be approved annually and supervised by the departments/subject areas in which they are majoring or by the persons responsible for their areas of concentration. While a subsequent change of major subjects or areas of concentration is possible, students are advised that such a change may necessitate additional courses in order to meet graduation requirements. The regulations governing the major program will be those in effect at the time of declaration of the major. Students are strongly encouraged to declare their major prior to 1 May.

In addition to satisfying requirement 3, students must complete the equivalent of not fewer than six credits (6.0) in the subject of the major or in the chosen area of concentration; but may count among these six any relevant course(s) taken in fulfillment of requirement 3. Not fewer than four (4.0) of the six credits (6.0) must be at the 300 level or above. No department may require more than eight credits (8.0) in the major subject.

Within the limits imposed by these regulations, students may count towards a Bachelor of Arts degree, the equivalent of up to three credits (3.0) from outside the range of recognized Arts subjects as specified in requirement 4. The Dean of the Faculty may authorize an extension of this upper limit to meet special program requirements where there are sound academic reasons for doing so.

Students registered in the Faculty of Arts should note that certain course offerings in the Faculty of Commerce are acceptable as Arts credits. These are MSC 205.1(.2); MSC 206.1(.2); MSC 207.1(.2); and MSC 225.1(.2). Other Commerce (also Science and Education) courses to a maximum of 3.0 may be taken in a Bachelor of Arts program but they cannot be counted as Arts credits.

In order to have major subjects or areas of concentration formally entered upon their records, students must have maintained a minimum cumulative quality point average of 2.00 (or an average grade of C) in the courses specified in requirement 5, and must have fulfilled any additional requirements specified by their departments or areas of concentration. Students who fail to achieve this average may, provided that they fulfil all other requirements, graduate as non-majors.

Students have the option of declaring minor fields in addition to their major ones. To satisfy the requirements for a minor they must complete at least four credits (4.0) in that particular subject or area of concentration. At least two of these credits (2.0) must be at the 300 level or above. For more specific departmental requirements, consult the departmental statements in Section 5 of the Calendar.

9. It is also possible to declare a double major, in which case the students must fulfil both faculty and departmental requirements in respect of each of the subjects declared. In some cases this may not be possible without exceeding the total number of credits normally required for graduation; but the Dean, with the approval of the appropriate departmental Chairpersons, may reduce these requirements in the light of a student's overall record.

10. In conformity with academic regulation 7-c(i) students must achieve a minimum cumulative quality point average of 1.50 in order to qualify for graduation.

11. Requirements for the Degree of Bachelor of Arts - Honors

a. The Faculty of Arts offers honors programs in Anthropology, Atlantic Canada Studies, Asian Studies, Economics, English, Geography, History, International Development Studies, Mathematics, Modern Languages, Philosophy, Political Science, Psychology, Religious Studies, and Sociology. It is also possible to take combined honors in any two of these subjects.

b. The following represent the minimum requirements for admission to, continuance in, and graduation from an honors program in Arts. For information about specific program requirements (which in some cases exceed these minimum requirements) consult the appropriate departmental and subject area statements.

12. Admission Requirements for Honors Program

a. Normally, after having taken at least three credits (3.0) in the discipline, or in certain cases at the conclusion of their second university year, students should make application for admission to the honors program on the special form obtainable from the Registrar, who will forward it for approval to the Chairperson of the appropriate department and of the Dean of the Faculty in which they are enrolled.

b. The normal prerequisite for honors is a minimum cumulative quality point average of 3.00. Students, however, will be assessed on the basis of their overall academic record.

13. Requirements for Continuance in and for Graduation with Honors

a. Students must earn twenty credits (20.0).

b. To continue in the program, students must achieve a minimum cumulative quality point average of 3.00.

c. To graduate, students must achieve a minimum cumulative quality point average of 3.00.

d. Students must complete not fewer than ten credits (10.0) in the honors subject, of which eight (8.0) must be at the 300 level or above. Each year the students' programs must have the approval of the Chairperson of the department who may permit the substitution of up to two credits (2.0) from a related subject area as part of the ten credits (10.0) required.

e. In the courses presented to satisfy 13-d, students must have a minimum quality point average of 3.00 with grades of B or higher in at least eight credits (8.0) and no grade lower than C (2.00).

14. Requirements for Graduation with Combined Honors

a. For a combined honors degree, students must complete not fewer than seven credits (7.0) in each of two honors subjects. At least ten of these credits (10.0) must be at the 300 level or above, including a minimum of four (4.0) in each subject. Each year, the students' programs must have the approval of the Chairpersons of both departments involved.

b. To continue in the program, students must achieve a minimum cumulative quality point average of 3.00.

c. To graduate, students must achieve a minimum cumulative quality point average of 3.00.

d. In the courses presented to satisfy 14-a, students must have a minimum quality point average of 3.00 with grades of B or higher in at least eleven credits (11.0), and no grade lower than C (2.00).

15. Additional Requirements for Graduation with Honors and Combined Honors

For honors, students must complete the requirements for the Bachelor of Arts degree as outlined in the Calendar (see no. 3), and any additional requirements of the relevant department(s)/subject area(s).

16. Students who fail to meet the requirements for an honors degree but who otherwise meet the requirements for the general degree, on formal application, should be awarded the general degree.

17. In addition to the overall quality point average noted in 13 above, every student in honors must attain a minimum quality point average of 3.00 in the honors subject(s), with grades of C in no more than two credits (2.0), and no grade lower than C, in the same subject(s).

18. Co-operative Education Programs

At the present time, the Department of Geography and Sociology have temporarily suspended offering their Co-operative Education programs.

Criminology Certificate Program

This program of four credits (4.0) is designed to provide broad theoretical and practical foundations for persons interested in studying about or working in the criminal justice system and for persons already working with problems of delinquency, criminal behaviour, and the treatment of offenders.

The program is intended for undergraduate students, persons already holding degrees, and working officers in the police forces, in federal or provincial correctional services, court workers, and others working in the criminal justice system.

Admission

Applicants must be enrolled in a degree program at Saint Mary's University, or have completed an undergraduate degree, or have relevant work experience. The Criminology Certificate Program requires a formal application for admission. Demonstrated academic ability or relevant work experience, and official approval of the Criminology Certificate Coordinator are prerequisites for admission to the program. To be eligible for the Criminology Certificate Program, a student without relevant work experience must have completed at least four credits (4.0), one (1.0) of which must be SOC 200.0, and must have attained a minimum cumulative quality point average of 3.00. Potential applicants with work experience are encouraged to take SOC 200.0. Once students are eligible they are urged to apply for the program.

Required courses in the program should be taken after the student has officially been admitted. In cases where students already have completed one credit (1.0) requirement or less in the program, they may be admitted to the program but will still be required to complete four credits (4.0) after admission. Alternative program courses will be selected and approved by the Coordinator after consultation with the student. Students who have completed more than 25% of the program credits will not be admitted. Transfer credits from other academic institutions are not accepted towards the Criminology Certificate Program. Applicants must submit a resume of relevant work experience, official university transcripts, and any other relevant documentation.

Program Courses

The program courses consist of three required credits (3.0) and a number of optional credits. All students are required to take the following courses: SOC 202.1(.2), 203.1(.2), 303.0, and 307.0; and to select one optional credit (1.0) from the following courses: SOC 315.0, 344.0, 388.1(.2), 389.1(.2), 390.1(.2), 431.0, 432.1(.2), 454.0, 455.0, 457.1(.2), 458.1(.2). Detailed descriptions of these courses are found in the Department of Sociology listings, Section 5 of the Academic Calendar. Not all courses will be offered each year, and students should expect to take at least two years to complete the program.

Requirements for Graduation

Students are encouraged to complete the program within six years. A minimum cumulative quality point average of 2.00 in the Criminology Certificate Program credits is required. Students who have completed the courses without being officially admitted to the Criminology Certificate Program will not be accredited.

Application

Students must apply for the program by completing the application form available from the Registrar. The completed form (along with supporting documents, where applicable) must be returned to the Registrar, who will submit the application for approval to the Coordinator of the Criminology Certificate Program. Because academic and relevant work experience are important criteria for admission to the program, students are advised that applications to the Criminology Certificate Program are processed on a competitive basis. The deadline for applications is February 1 for entry the following September. Acceptance into the program is conditional upon review of the applicant's final university grades for the year of application.

Degree Program for Vocational School Teachers

1. Vocational teachers may be admitted to the Bachelor of Arts program if they have completed:

- eight years trade training and experience,
- Grade 12 or its equivalent,
- the three-summer program at the New Brunswick School or Institute of Technology, or Nova Scotia Teachers College,
- and three years successful teaching at a vocational high school or technical institute.

2. Teachers so admitted may qualify for the Bachelor of Arts degree by completing a minimum of twelve credits (12.0) in recognized Arts subjects and by completing all other degree requirements as specified in the above regulations.

3. Vocational teachers who have successfully completed a Bachelor of Arts degree at Saint Mary's University may receive the degree of Bachelor of Education (Vocational) by successfully completing at Saint Mary's University three credits (3.0) in Education which have been approved by the Dean of Education.

4. Vocational teachers may proceed to the degrees of Bachelor of Education (Vocational) and Bachelor of Arts concurrently.

Dual Bachelor Degree Programs

Since it is possible to pursue two bachelor degrees from Saint Mary's University, students may desire to arrange their courses so as to obtain a bachelor degree in any two of the following three Faculties: Arts, Science, or Commerce.

While the total time required is somewhat longer, such dual degree programs are quite feasible. Students who contemplate pursuing a dual degree program should consult with the Deans of both Faculties before embarking on their program of study.

If a student opts to graduate after completing only one of the degree programs, and subsequently wishes to complete the second program, the requirements are those for a second undergraduate degree as stated in academic regulation 24.

Information concerning the Faculty of Arts programs at the graduate level is found later in this Calendar.

The Frank H. Sobey Faculty of Commerce

Dr. A. Scott Carson, Dean
Dr. Janet Gregory, Associate Dean

General Information

In August 1992, the University paid tribute to one of Canada's premier business leaders by naming its Faculty of Commerce in honor of the late Frank H. Sobey, who founded Empire Company Limited, Stellarton, Nova Scotia. Its holdings include Sobeys Stores, Atlantic Shopping Centres, Empire Theatres, Lawton's Drug Stores, as well as extensive investments both nationally and internationally.

The Faculty of Commerce offers programs of study leading to the degrees of Bachelor of Commerce, Bachelor of Commerce (Honors) in Economics, and Master of Business Administration (including Executive Master of Business Administration). The purpose of these programs is to prepare students for meaningful careers in business and government.

Selected undergraduate and graduate programs have a Co-operative Education option. All programs, except the Executive Master of Business Administration, can be completed on a part-time basis involving evening and summer study. Certificate programs are only offered in co-operation with the Society of Management Accountants in the Maritime Provinces and the Human Resource Association of Nova Scotia.

The bachelor degree programs couple a broad educational foundation in English, Mathematics and other Arts and Science subjects with the study of a common body of business and economic knowledge. Students have the opportunity to attain an appropriate degree of specialized expertise in Accounting, Economics, Finance, Management, Marketing, Computing and Information Systems, Small Business Management, Management Science, Human Resource Management and Industrial Relations, Small Business and Entrepreneurship, and Computing Science and Business Administration. The last two programs may include a Co-operative Education component.

The Master of Business Administration program encompasses a common body of business and economic knowledge and advanced study in Accounting, Economics, Finance, Management, Management Science and Marketing. In addition to the generalist program, concentrations exist in Professional Accounting (Co-operative Education) and International Development Management. The Executive Master of Business Administration is available to qualified middle and senior managers.

Faculty of Commerce – Undergraduate Programs

Bachelor of Commerce

The following requirements apply to all entering Commerce students.

The Bachelor of Commerce program consists of twenty credits beyond Nova Scotia Grade 12 (or equivalent). The Small Business and Entrepreneurship major requires twenty-one credits. Students lacking the equivalent of Nova Scotia Grade 12 may be required to complete additional courses as specified by the Dean. Courses beginning with zero (0) are designated preparatory and will not be credited toward any degree, diploma or certificate.

In conformity with academic regulation 7-c(i) students must achieve a minimum cumulative quality point average of 1.50 in order to qualify for graduation. Co-operative Education students must attain a minimum cumulative quality point average of 2.50 and honors students require an minimum average of 3.00.

During the regular academic year a full time student will normally take the equivalent of five credits (5.0). (See academic regulation 1.)

For the degree of Bachelor of Commerce, each student is required to successfully complete the courses listed in regulation 6 below in Year 1 and Year 2. Students are expected to select a major at the end of Year 2. Requirements for Year 3 and Year 4 depend upon the major selected. Courses for each major and concentration are given in regulation 7. Credit value of each course is indicated in

parenthesis after the course number. They are arranged by year as a guide to students in preparing their individual programs of study.

5. a. EGL 201.1(.2) and 202.1(.2) are required of all students.
b. Nova Scotia Grade 12 Mathematics (or equivalent) is a prerequisite for MSC 205 and 206. In the event that students did not have Nova Scotia Grade 12 Mathematics on admission, they are required to take MAT 050.1(.2) and 051.1(.2) (or equivalent) prior to taking MSC 205.1(.2) and 206.1(.2). These are both preparatory courses and will not be credited toward any degree, diploma or certificate.

c. All undergraduate Commerce students are required to successfully complete at least three credits (3.0) offered outside of the Faculty of Commerce. At most, one (1.0) of these may be at the 100 level. Non-Commerce courses taken in lieu of Commerce courses cannot be counted as non-Commerce electives.

d. Each major has at least one and one-half credits (1.5) of free electives. A free elective may be chosen from any Faculty.

6. Requirements for Year 1 and Year 2

Students required to complete additional courses due to background deficiencies should consult the Associate Dean of Commerce for program advice. Students in the Computing Science and Business Administration major should refer to Section 5 of this Calendar for the recommended course sequence and all the program requirements for this major.

Year 1

MSC 205.1(.2)	Introduction to Quantitative Methods for Commerce I
MSC 206.1(.2)	Introduction to Quantitative Methods for Commerce II
MGT 281.1(.2)	Introduction to Business Management
MSC 225.1(.2)	Introduction to Computers
ECO 201.1(.2)	Principles of Economics: Micro
ECO 202.1(.2)	Principles of Economics: Macro
EGL 201.1(.2)	English Composition
EGL 202.1(.2)	An Introduction to Literature
One (1.0) non-Commerce elective	

Year 2

MSC 207.1(.2)	Introductory Statistics for Commerce
ACC 241.1(.2)	Introductory Accounting I
ACC 242.1(.2)	Introductory Accounting II
MKT 270.1(.2)	Introduction to Marketing
MGT 383.1(.2)	Organizational Behavior I
MGT 384.1(.2)	Organizational Behavior II
CML 201.1(.2)	Legal Aspects of Business – Part I
One (1.0) Economics elective – see note below	
COM 293.1(.2) Managerial Communications	
or	
EGL 250.1(.2) Business English	

Note: It is recommended that students wishing to major in Economics take ECO 300.1(.2) and ECO 301.1(.2). Other Commerce students may take one or both of these courses or another credit (1.0) in Economics [except ECO 317.1(.2) or 322.1.2.] for which they have the necessary prerequisites.

7. Requirements for Year 3 and Year 4

Students are also required to complete a major in Accounting, Business Administration, Economics, Computing Science and Business Administration, Global Business Management, or Small Business and Entrepreneurship. Students wishing to apply for the Computing Science and Business Administration major should apply to the Director of the joint program no later than the end of Year 1. Those wishing entry to the Small Business and Entrepreneurship major must apply to the Dean of Commerce no later than the end of the first semester of Year 2. For other majors (i.e., Accounting, Business Administration, Economics, and Global Business Management) students are expected to choose a major by the end of Year 2. At this time, Business Administration majors are also expected to choose their program (Computing and Information Systems, Finance, Management, Management Science, Marketing, Human Resource Management and Industrial Relations, or General Business Studies). Further details on these majors and the required courses can be found in Section 5, Description of Courses, in this Calendar.

The Year 3 and Year 4 requirements are listed below by major and programs where applicable.

a. Accounting Major

Year 3

ACC 323.1(.2)	Information Systems I
ACC 332.1(.2)	Planning and Control
ACC 334.1(.2)	Cost Accounting
ACC 341.1(.2)	Intermediate Financial Accounting I
ACC 342.1(.2)	Intermediate Financial Accounting II
ACC 345.1(.2)	Financial Accounting Theory
FIN 360.1(.2)	Business Finance I
FIN 361.1(.2)	Business Finance II
One (1.0) free elective	

Year 4

ACC 455.1(.2)	Financial Accounting Seminar or
ACC 470.1(.2)	Management Accounting Seminar – see note (i) below

One (1.0) Accounting elective – see note (ii) below
 MGT 489.1(.2) Strategic Management
 Two (2.0) non-Commerce electives
 One (1.0) free elective at 200 level or above – see note (iii) below

Notes:

- (i) Students receiving credit for ACC 449.1(.2) cannot also receive credit for ACC 470.1(.2) toward their Accounting major.
 (ii) MSC 324.1(.2), MSC 326.1(.2), or MSC 335.1(.2) satisfies this requirement.
 (iii) CML 202.1(.2) is normally required by professional accounting associations.

b. Economics Major

Year 3

ACC 332.1(.2)	Planning and Control
ECO 300.1(.2)	Intermediate Microeconomic Theory I – see note below
ECO 301.1(.2)	Intermediate Macroeconomic Theory I – see note below
ECO 304.1(.2)	Intermediate Microeconomic Theory II or ECO 305.1(.2) Intermediate Macroeconomic Theory II
FIN 360.1(.2)	Business Finance I
FIN 361.1(.2)	Business Finance II

One (1.0) humanities or language elective [Classics, History, Philosophy (except PHI 200.0), Religious Studies, English, or Modern Languages]
 One (1.0) free elective

Year 4

One of ECO 306.1(.2), 310.1(.2), 312.1(.2), 315.1(.2), 323.1(.2), 406.1(.2), or 412.1(.2)

One (1.0) Economics elective at 400 level or above
 MGT 489.1(.2) Strategic Management
 One (1.0) social science (excluding Economics) elective [Anthropology, Geography, Political Science, Sociology, or Psychology]

Two (2.0) free electives at 200 level or above

Note: It is recommended that students planning to major in Economics take ECO 300.1(.2) and 301.1(.2) in Year 2 and defer one credit (1.0) of Economics electives to Year 3.

c. Business Administration Major (Computing and Information Systems Program)

Year 3

ACC 323.1(.2)	Information System I
ACC 332.1(.2)	Planning and Control
FIN 360.1(.2)	Business Finance I
FIN 361.1(.2)	Business Finance II
MSC 324.1(.2)	The Use of COBOL in Data Processing
MSC 326.1(.2)	Database Programming – see note below

One (1.0) non-Commerce elective
 One (1.0) free elective

Year 4

ACC 425.1(.2)	Management Information Systems II
MGT 483.1(.2)	Interpersonal Behavior I or other MGT elective approved by the Chairperson of the Department of Finance and Management Science

MGT 489.1(.2) Strategic Management
 MSC 424.1(.2) COBOL II
 MSC 426.1(.2) Computer Configurations
 MSC 436.1(.2) Data Communications
 One (1.0) non-Commerce elective
 One (1.0) free elective at 200 level or above

Note: Students registered in the Computing and Information System (CIS) concentration prior to 1991, can use MSC 331.1(.2) to satisfy the MSC 326.1(.2) requirement.

d. Business Administration Major (Finance Program)

Year 3

ACC 332.1(.2)	Planning and Control
FIN 360.1(.2)	Business Finance I
FIN 361.1(.2)	Business Finance II
One (1.0) Commerce elective at 300 level or above	
One (1.0) non-Commerce elective	
One (1.0) free elective	
One-half (0.5) free elective at 200 level or above	

Year 4

FIN 463.1(.2)	Financial Management
FIN 464.1(.2)	Corporation Finance
FIN 466.1(.2)	Investments
FIN 467.1(.2)	Portfolio Management
MGT 489.1(.2)	Strategic Management
One (1.0) non-Commerce elective	
One and one-half (1.5) free electives at 200 level or above	

e. Business Administration Major (Management Program)

Year 3

ACC 332.1(.2)	Planning and Control
FIN 360.1(.2)	Business Finance I
FIN 361.1(.2)	Business Finance II
MSC 316.1(.2)	Management of Service Operations or MSC 317.1(.2) Management of Manufacturing Operations

One-half (0.5) Accounting elective
 One (1.0) Marketing elective
 One-half (0.5) Commerce elective
 One (1.0) free elective

Year 4

MGT 385.1(.2)	Human Resource Management
MGT 386.1(.2)	Industrial Relations
MGT 481.1(.2)	Organization Theory: Structure, Process, Analysis and Design
MGT 489.1(.2)	Strategic Management
One-half (0.5)	Finance elective
Two (2.0) non-Commerce electives	
One-half (0.5) free elective at 200 level or above	

f. Business Administration Major (Management Science Program)

Year 3

ACC 332.1(.2)	Planning and Control
FIN 360.1(.2)	Business Finance I
FIN 361.1(.2)	Business Finance II
MSC 301.1(.2)	Operations Research – see note (i) below
MSC 303.1(.2)	Statistical Analysis for Business and Economic
MSC 316.1(.2)	Management of Service Operations or MSC 317.1(.2) Management of Manufacturing Operations

One (1.0) non-Commerce elective
 One (1.0) free elective

Year 4

MGT 489.1(.2)	Strategic Management
One and one-half (1.5) free electives in a quantitative area – see note (ii) below	
One (1.0) Commerce elective in a non-quantitative area	
One (1.0) non-Commerce elective	
One (1.0) free elective at 200 level or above	

Notes:

- (i) MAT 445.0 may be taken in lieu of MSC 301.1(.2) and 0.5 non-Commerce elective.
 (ii) These electives must be selected in consultation with and approved by the student's Management Science Advisor.

g. Business Administration Major (Marketing Program)

Year 3

ACC 332.1(.2)	Planning and Control
FIN 360.1(.2)	Business Finance I
FIN 361.1(.2)	Business Finance II
MKT 376.1(.2)	Consumer Behavior
MKT 378.1(.2)	Marketing Research
MKT 379.1(.2)	Marketing Management
One (1.0) non-Commerce elective	
One (1.0) free elective	

Year 4
ST 489.1(2) Strategic Management
KT 479.1(2) Marketing Policy
One (1.0) Marketing elective
One (1.0) non-Commerce elective
Two (2.0) free electives at 200 level or above

Business Administration Major (Human Resource Management and Industrial Relations Program)

Year 3
CC 332.1(2) Planning and Control
FN 360.1(2) Business Finance I
FN 361.1(2) Business Finance II
GT 385.1(2) Human Resource Management
GT 386.1(2) Industrial Relations
DO 339.1(2) Labor Economics
DO 340.1(2) Human Resource Economics
One (1.0) free elective
One-half (0.5) free elective at 200 level or above – see note below

Year 4
GT 481.1(2) Organization Theory: Structure, Process, Analysis and Design
GT 483.1(2) Interpersonal Behavior I
GT 489.1(2) Strategic Management
Two (2.0) non-Commerce electives
One and one-half (1.5) free electives at 200 level or above
Note: If ECO 339.1(2) and/or ECO 340.1(2) were used to satisfy the required Economics electives in Year 2, the number of free electives increased to one (1.0) or one and one-half (1.5) as appropriate.

Business Administration Major (General Business Studies Program)

Year 3
CC 332.1(2) Planning and Control
FN 360.1(2) Business Finance I
FN 361.1(2) Business Finance II
One and one-half (1.5) Commerce electives at 300 level or above
One (1.0) non-Commerce elective
One (1.0) free elective

Year 4
GT 489.1(2) Strategic Management
One and one-half (1.5) Commerce electives at 300 level or above
One (1.0) non-Commerce elective
Two (2.0) free electives at 200 level or above

Computing Science and Business Administration Major
 For details on this program, please consult the "Computing Science and Business Administration" entry in Section 5 of this Calendar. A Co-operative Education option is available. Students already enrolled in the Commerce program who wish to major in Computing Science and Business Administration must apply to the Director of the joint program for admission into this program. Normally, the minimum cumulative quality point average for transfer is 3.00.

Small Business and Entrepreneurship Major (Co-operative Education)

This major is available only as a Co-operative Education program. Students must apply for admission to the major in January after completion of the third academic term. Final decision on admission is made at the end of the fourth academic term. Students must have a minimum cumulative quality point average of 2.50. Students will be admitted on the basis of interest, aptitude and assessed ability to complete successfully the academic and work term requirements of the major. Admission decisions will be made on the basis of academic achievement and interviews with the departmental Co-operative Education Advisor. Co-operative Education regulations are contained later in this section.

Summer Following Year 2

GT 387.1(2) Introduction to Entrepreneurship and Small Business
COP 100.0 Work Term 1

Year 3
Fall Term
ACC 332.1(2) Planning and Control
FN 360.1(2) Business Finance I
GT 494.1(2) Entrepreneurship: Theories and Concepts
GT 495.1(2) Small Business Performance Improvement
One-half (0.5) free elective at 200 level or above

Spring Term
COP 200.0 Work Term 2

Summer Term
FIN 361.1(2) Business Finance II
One (1.0) non-Commerce elective at 200 level or above
One (1.0) free elective

Year 4
Fall Term
COP 300.0 Work Term 3

Spring Term
MGT 389.1(2) Structuring the Start-up
MGT 487.1(2) Small Business Opportunities
MGT 491.1(2) Small Business Seminar
One (1.0) free elective at 200 level or above

Summer Term
MGT 489.1(2) Strategic Management
One (1.0) non-Commerce elective at 200 level or above
One (1.0) free elective at 200 level or above

I. Global Business Management Major

Complete details on this major are described in the "Global Business Management" entry in Section 5 of this Calendar.

Year 3

ACC 332.1(2) Planning and Control
ACC 357.1(2) International Accounting
FIN 360.1(2) Business Finance I
FIN 361.1(2) Business Finance II
MKT 375.1(2) International Marketing
One (1.0) Modern Language (except English) elective [Chinese, French, German, Italian, Japanese, or Spanish] – see note (i) below
One (1.0) Geographic elective – see note (ii) below
One-half (0.5) free elective

Year 4

FIN 476.1(2) International Finance
MGT 488.1(2) International Business
MGT 489.1(2) Strategic Management
One (1.0) Modern Language (except English) elective [Chinese, French, German, Italian, Japanese, or Spanish] – see note (iii) below
One (1.0) Geographic elective – see note (iv) below
One (1.0) International elective – see note (v) below
One-half (0.5) free elective

Notes:

- (i) If the non-Commerce elective in Year 1 was a Modern Language, then this requirement can be replaced with one free elective (1.0) at the 200 level or above.
- (ii) One elective (1.0) must be selected from one and only one of the following regions: Africa, Americas, Asia, or Europe. Approved courses for each region are listed in the entry "Global Business Management" in Section 5 of this Calendar.
- (iii) Credit must be in the same language as Year 3 language credit.
- (iv) One elective (1.0) must be selected from one, and only one, of the areas (Africa, Americas, Asia, or Europe) different from the area of Year 3 Geographic credit.
- (v) One elective (1.0) must be selected from the approved list of Geographic credits or general International credits found in the "Global Business Management" entry in Section 5 of this Calendar. If ECO 310.1(2), ECO 312.1(2), ECO 313.1(2), ECO 315.1(2), or ECO 414.1(2) were used to satisfy the Economics elective(s) in Year 2, the number of free electives at the 200 level or above is increased by one-half (0.5) or one (1.0) as appropriate.
- (vi) In cases where a student is fluent in two languages, other courses relevant to the major may be substituted for the language credits, with the approval of the Program Coordinator.
- (vii) Notwithstanding the course substitutions possible in (i), (v), and (vi) above, all students must complete at least three non-Commerce electives (3.0).

Bachelor of Commerce Degree (Honors – Economics)

1. Admission Requirements

- a. Minimum cumulative quality point average of 3.00 at the end of Year 2.
- b. Students must make application for admission to the Honors program on the special form obtainable from the Registrar no later

than the last day of registration at the beginning of Year 3. They must obtain the approval of the Chairperson of the Economics Department and of the Dean of Commerce.

2. Requirements for Continuance and Graduation

- To continue in the program and to graduate, students must maintain a minimum cumulative quality point average of 3.00.
- The specific course requirements of the program are:

Year 1

- *MSC 205.1(.2) Introduction to Quantitative Methods for Commerce I
- *MSC 206.1(.2) Introduction to Quantitative Methods for Commerce II
- MGT 281.1(.2) Introduction to Business Management
- MSC 225.1(.2) Introduction to Computers
- *ECO 201.1(.2) Principles of Economics: Micro
- *ECO 202.1(.2) Principles of Economics: Macro
- EGL 201.1(.2) English Composition
- EGL 202.1(.2) An Introduction to Literature
- One (1.0) humanities elective [Classics, History, Philosophy (except PHI 200.0), Religious Studies, English, or Modern Languages]

Year 2

- *MSC 207.1(.2) Introductory Statistics for Commerce
- ACC 241.1(.2) Introductory Accounting I
- ACC 242.1(.2) Introductory Accounting II
- MKT 270.1(.2) Introduction to Marketing
- MGT 383.1(.2) Organizational Behavior I
- MGT 384.1(.2) Organizational Behavior II
- CML 201.1(.2) Legal Aspects of Business – Part I
- COM 293.1(.2) Managerial Communications
- *ECO 300.1(.2) Intermediate Microeconomic Theory I
- *ECO 301.1(.2) Intermediate Macroeconomic Theory I

Year 3

- ACC 332.1(.2) Planning and Control
- FIN 360.1(.2) Business Finance I
- FIN 361.1(.2) Business Finance II
- *ECO 302.1(.2) Mathematical Economics
- *ECO 303.1(.2) Intermediate Economic Statistics
- *ECO 304.1(.2) Intermediate Microeconomic Theory II
- *ECO 305.1(.2) Intermediate Macroeconomic Theory II
- *One of ECO 306.1(.2), 312.1(.2), or 406.1(.2)
- One (1.0) social science (excluding Economics) elective [Anthropology, Geography, Political Science, Sociology, or Psychology]

Year 4

- MGT 489.1(.2) Strategic Management
- *ECO 309.1(.2) Introduction to Econometrics
- *ECO 440.1(.2) Advanced Microeconomics
- *ECO 441.1(.2) Advanced Macroeconomic Theory
- *ECO 591.1(.2) Honors Seminar and Project
- *One and one-half (1.5) Economics electives
- One-half (0.5) Free elective

c. For courses marked with an asterisk (*), no grade below a C is acceptable and at least eight credits (8.0) must have a grade of B or higher.

d. With the approval of the Chairperson of the Economics Department, a student may be permitted to substitute up to two credits (2.0) from a related subject for Year 3 and Year 4 required Economics courses.

e. With the approval of the Chairperson of the Economics Department, a student may substitute one and a half credits (1.5) from the Department of Mathematics and Computing Science for ECO 302.1(.2), 303.1(.2), and 309.1(.2).

Co-operative Education Programs

The Faculty of Commerce offers a Co-operative Education major in Small Business and Entrepreneurship and a Co-operative Education option for the Computing Science and Business Administration major. Co-operative education is a dynamic approach to university education which integrates academic classroom studies with related practical work experiences outside the formal university environment. The principle upon which this concept is based is that learning and individual development are greatly enhanced when the concepts studied in the classroom are periodically applied, tested and

observed by the students in meaningful work situations. Through the program, participating businesses have an excellent opportunity to observe and influence the education of bright enthusiastic students. They also benefit from the access gained to university faculty and expertise, while university faculty and students become aware of the concerns of business and the varied problems which they face. Dr. Grant Hilliard serves as Liaison Officer of the Co-operative Education Programs.

A "Co-operative Education" notation is entered on the parchments and academic transcripts of undergraduate students who successfully complete Co-operative Education requirements in addition to their regular degree requirements.

1. Admission Requirements for Undergraduate Co-operative Education Programs

a. Students may be considered for admission to some Co-operative Education programs in the Faculty of Commerce after the completion of the first semester of Year 2 and will be based on the student's grades. Final decisions on admission to the program will be made at the end of the second semester.

b. Students should make application for admission to the Co-operative Education program on a special form obtainable from the Co-operative Education Office. Students will be admitted to a Co-operative Education program on the basis of their formal academic achievement and interviews with the appropriate departmental Co-operative Education Advisor.

c. The normal prerequisite for admission to a co-operative education program in a regular Bachelor of Commerce program is a minimum cumulative quality point average of 2.50 and a minimum quality point average of 3.00 in the course(s) of the student's declared major subject(s). Special requirements may apply for some majors.

d. Students will be admitted to a co-operative education program on the basis of their interest, aptitude and assessed ability to combine successfully the academic requirements of a major program together with the special work term requirements of the Co-operative Education program they wish to enter.

2. Requirements for Continuance in and Graduation from a Co-operative Education Program

a. Students must complete all of the regular requirements for a Bachelor of Commerce (see regulations 1 through 7 in the Bachelor of Commerce section of the Calendar). Since individual programs may have specific additional requirements for Co-operative Education students, students should consult the appropriate departmental section of this Calendar for a description of these regulations.

b. In addition to the above requirements, students must officially register for and complete three work term (four work terms for Computing Science students) experiences as specified by the department of their major program (see regulations below and departmental Co-operative Education regulations).

c. To continue in and graduate from a Co-operative Education program, students must earn a minimum cumulative quality point average of 2.50 with a minimum quality point average of 3.00 in all courses in their major subject(s).

3. Policies and Regulations Governing Co-operative Education Work Terms

a. The University will make every effort to locate work term positions for Co-operative Education students in academically related areas of employment, but cannot guarantee placements. Employment settings may also be identified by Co-operative Education students, but require the approval of the appropriate departmental co-operative education advisor.

b. The satisfactory fulfillment of Co-operative Education work terms require:

(I) the completion of three (four for Computing Science) terms of work experience in academically related, paid employment situations of 13 to 16 weeks duration. Under certain circumstances and with the approval of the appropriate department, students may be permitted to satisfy their work terms requirements in an unpaid position. Self-employment will be considered.

(II) a satisfactory employer evaluation for each co-operative education work term (self-employed students will be evaluated by an individual selected by the department);

(iii) the satisfactory completion of a written report submitted 30 days after the end of each work term detailing the student's experience in accordance with departmental standards and expectations.

(iv) fulfilment of any other requirements specified by the department, such as the participation in seminars or workshops.

A notation will be included on students' academic transcripts indicating satisfactory completion of each work term.

Graduating students who have successfully completed their Co-operative work term requirements will have this noted on their academic transcripts. If, in addition, all other normal academic requirements are fulfilled, a "Co-operative Education" notation will be placed on their parchments.

Students may be required to withdraw from a Co-operative Education program if:

(i) they are dismissed from, quit, or fail to accept an appropriate and approved Co-operative work term position;

(ii) they fail to submit or successfully complete a work term report;

(iii) they do not maintain the required quality point average necessary for continuance in a Co-operative Education program;

(iv) in the judgement of their department, they are no longer suited for the particular requirements of a Co-operative Education program.

Students who voluntarily withdraw from or who are required to withdraw from a Co-operative Education program may remain enrolled in and continue with the major or honors degree program required by their department, if such exist.

Co-operative Education students will be expected to attend any academic seminars or colloquia developed by the Faculty of Commerce, or the Co-operative Education departments, which deal with employment orientation and the application of formal academic study to work experiences.

Since academic study during work terms is discouraged, registration in any courses during a work term requires the approval of the Dean of Commerce or appropriate departmental Co-operative Education Advisor. If approval is granted, no more than one credit may be taken during a work term.

Registration and Fees for Co-operative Education

Students are required to register for all work terms at the Registrar's Office, according to normal registration procedures. Work terms will be officially designated on students' transcripts as:

Work Term 1 = COP 100.1(.2)

Work Term 2 = COP 200.1(.2)

Work Term 3 = COP 300.1(.2)

Work Term 4 = COP 400.1(.2)

Students pay for their academic courses as they take them.

Students pay a fee equivalent to the tuition for one credit (1.0) each work term they undertake. This amount is paid to the Business Office within one month of the start of the work term.

Dual Bachelor Degree Programs

Since it is possible to pursue two bachelor degrees from Saint Mary's University, students may desire to arrange their courses so as to obtain a bachelor degree in any two of the following three Faculties – Science, or Commerce.

While the total time required is somewhat longer, such dual degree programs are quite feasible. Students who contemplate pursuing any dual degree program should consult with the Deans of both Faculties before embarking on their program of study.

If a student opts to graduate after completing only one of the degree programs, and subsequently wishes to complete the second program, the requirements are those for a second undergraduate program as stated in academic regulation 24.

Diploma in Management Accounting (DMA)

Administrative Director Lois Wasteneys

The Frank H. Sobey Faculty of Commerce at Saint Mary's University and the Society of Management Accountants of Nova Scotia are pleased to offer an innovative post-graduate diploma in Management Accounting. This program is designed to bridge the gap between the core program of the traditional B.Comm., BBA, or MBA and the advanced accounting knowledge required of professional accountants. Graduates of this non-credit diploma program will be eligible to challenge the entrance examination of the Society of Management Accountants of Canada. This is the first phase toward attainment of the designation of Certified Management Accountant (CMA).

In order to be eligible for admission to the DMA at Saint Mary's, students must:

- be members in good standing with the Society of Management Accountants (SMA) in the Maritime Provinces; and
- have been granted, by the SMA, standing in the following areas:

Core Area	Saint Mary's Courses
Introductory Accounting	ACC 241.1(.2) ACC 242.1(.2)
Commercial Law	CML 201.1(.2)
Organizational Behaviour	MGT 383.1(.2) MGT 384.1(.2)
Economics	ECO 201.1(.2) ECO 202.1(.2)
Computer Information Systems	MSC 225.1(.2)
Management Accounting	ACC 332.1(.2)
Quantitative Methods	MSC 207.1(.2)
Financial Management	FIN 360.1(.2) FIN 361.1(.2)
Strategic Management	MGT 489.1(.2)

Individuals who have not been granted standing in all of the core areas may take the equivalent Saint Mary's courses listed above. Such students must abide by all regulations of the University and satisfy necessary course prerequisites. Information on admission and registration at Saint Mary's as a non-degree or upgrading student may be obtained by contacting the Division of Continuing Education at 420-5492. Once students have achieved standing in the core courses, they will be eligible to register for the DMA program at Saint Mary's.

For more information on the CMA accreditation syllabus and for evaluation of previous academic work, students should submit official transcripts of their post-secondary education to the Society of Management Accountants in the Maritime Provinces, Purdy's Wharf, Tower II, Suite 1309, Box 42, Halifax, Nova Scotia B3J 3R7. Telephone: (902) 422-5836 or toll free 1-800-565-7198.

For more information on the DMA program please contact the Saint Mary's CMA Office at 420-5527 or toll free 1-800-565-1957.

Information concerning the Faculty of Commerce's programs at the graduate level is found later in this Calendar.

Faculty of Science

Dr. David H. Richardson, Dean

General Information

Students electing to pursue a program leading to the Bachelor of Science degree should consider which of three programs best suits their aspirations.

Honors

The honors program demands a minimum grade of C in all courses followed in the honors subject. This program is designed primarily for students who wish to proceed to graduate work or who wish to obtain professional status in the area of the honors subject. Students of above-average ability are urged to make application to follow an honors program before the end of Year 2. Formal application for admission to an honors program must be made on a form available in the Registrar's Office. The form must be submitted to the Registrar, who will forward it for approval to the Chairperson of the department concerned and the Dean of Science.

Major

The regular major program demands a minimum grade of C in all courses in the major subject. The program is designed to meet the needs of those students who wish to be employed in work related to the area of their major. It will be useful to those wishing to practice as technicians or technical officers. Additionally, this program permits students to prepare adequately for continued study at the graduate level, if warranted by performance and motivation.

General

The general program is designed to give a person a good educational background for life in today's technological world, and an understanding of the importance of the relationship between science and society. The general program is broader in scope than the major or honors programs, and students are encouraged to supplement their science studies with courses in the humanities and social sciences. Students taking this program as preparation for entrance to professional schools are urged from the beginning to place special emphasis on a high standard of performance.

Faculty of Science – Undergraduate Programs

Bachelor of Science – General

1. Subject to the regulations set forth in this Calendar, students must complete fifteen credits (15.0). Courses beginning with zero (0) are designed to prepare students for entry level course work and will not be credited towards any academic program.

2. Students will normally take five credits (5.0) during the regular academic year.

3. For the degree of Bachelor of Science, students must successfully complete:

- a. one credit (1.0) in English, normally EGL 201.1(.2) and 202.1(.2);
- b. one credit (1.0) in Mathematics: either MAT 210.1(.2)/211.1(.2) or CSC 226.1(.2)/227.1(.2);
- c. two credits (2.0) in the humanities in addition to EGL 201.1(.2)/202.1(.2). ("Humanities" are Classics, English, History, Modern Languages, Philosophy and Religious Studies);
- d. not less than five (5.0) or more than seven science credits (7.0) in their area of concentration (Biology, Chemistry, Geology, Mathematics, Physics or Psychology);
- e. four science credits (4.0) not in the subject of concentration and in addition to the required Mathematics or Computing Science courses; and
- f. sufficient electives to complete the fifteen credits (15.0) required for a general Bachelor of Science.

Bachelor of Science – Major

4. Subject to the regulations set forth in this Calendar, students must complete twenty credits (20.0). Courses beginning with zero are designed to prepare students for entry level course work and will not be credited towards any academic program.

5. Students will normally take five credits (5.0) during the regular academic year.

6. To earn a degree of Bachelor of Science with a major, students must successfully complete:

- a. one credit (1.0) in English, normally EGL 201.1(.2) and 202.1(.2);
- b. one credit (1.0) in Mathematics: either MAT 210.1(.2)/211.1(.2) or CSC 226.1(.2)/227.1(.2). For some science majors, CSC 226.1(.2)/227.1(.2) are not acceptable (see Section 5 in this Calendar);
- c. two credits (2.0) in the humanities in addition to EGL 201.1(.2)/202.1(.2). ("Humanities" are Classics, English, History, Modern Languages, Philosophy and Religious Studies);
- d. not less than seven (7.0) or more than nine credits (9.0) in the major subject. The Astrophysics major requires six credits (6.0) in Physics and three credits (3.0) in Astronomy (see Section 5 in this Calendar);
- e. four science credits (4.0) not in the major subject [two science credits (2.0) for the Astrophysics program] and in addition to the required Mathematics or Computing Science credit (1.0); and
- f. sufficient elective credits to complete the twenty credits (20.0) required for a Bachelor of Science with a major.

Combined Major

7. With the approval of the departments involved, students may pursue a combined major program in any two science subjects (except Astrophysics). In addition to satisfying the requirements for the Bachelor of Science major (see above), students must complete the following:

- a. at least five credits (5.0) in each major subject;
- b. two science credits (2.0) not in the major subjects and in addition to the required Mathematics or Computing Science credit (1.0); and
- c. sufficient electives to complete the twenty credits (20.0) required for a Bachelor of Science with a combined major.

Note: In conformity with academic regulation 7-c(i) students must achieve a minimum cumulative quality point average of 1.50 in order to qualify for graduation with a Bachelor of Science degree – general, with a major, or with a combined major.

8. Students programs must be approved by the department(s) in which the major is taken and must satisfy any core programs specified by the department(s) and approved by the Faculty of Science. These requirements may be waived in special cases by the Dean of Science who may approve a special program for the student in consultation with the department(s) concerned.

9. Students must obtain a grade of not less than C in every course in the major subject(s). A student obtaining a grade of less than C in any such course may be permitted to continue in the major program with the approval of the Dean of Science, acting in consultation with the department(s) concerned.

Degree of Bachelor of Science – Honors

10. An honors program can be taken in the following disciplines: Astrophysics, Biology, Chemistry, Geology, Mathematics, Physics or Psychology; or as a combination of any two of these subjects (except Astrophysics). Students who plan to take an honors program must have the approval of the major department(s) and the Dean.

11. For the Bachelor of Science degree with honors, students must complete the requirements for a major (see section above) and the following:

- a. ten (10.0) to twelve credits (12.0) in the honors subject, or in a combined program at least six (6.0) in each subject, or in Astrophysics at least nine credits (9.0) in Physics and three (3.0) in Astronomy; one (1.0) of these must normally be a thesis credit;

four science credits (4.0) in the honors subject [two (2.0) in a combined honors, three (3.0) in Astrophysics] in addition to the required Mathematics and Computing Science credit (1.0);

sufficient electives to complete the twenty credits (20.0) required for a Bachelor of Science with honors.

Students' academic programs must be approved by the department(s) involved.

For a Bachelor of Science degree with honors, students must earn a grade of not less than C (2.00 quality points) in every honors course described in regulation 11-b above and a quality point average of not less than B in the same courses. A student receiving a grade of less than C in any honors course may be permitted to continue in the honors program with the approval of the Dean of Science, acting in consultation with the department(s) concerned.

Bachelor of Science (Major in Computing Science and Business Administration)

For details on this program, please consult the "Computing Science and Business Administration" entry in Section 5 of this Calendar.

Bachelor of Science (Major/Honors in Geology/Geography)

For details on this program, please consult the "Geology" entry in Section 5 of this Calendar.

Bachelor of Science in Environmental Studies

For details on this program, please consult the "Environmental Studies" entry in Section 5 of this Calendar.

Co-operative Education Programs (Major and Honors)

Grant Hilliard, Liaison Officer, Co-operative Education Programs

The Faculty of Science offers Co-operative Education programs in Biology, Chemistry, Environmental Studies, Geology, and Computing Science. Co-operative Education is a dynamic approach to university education which integrates academic classroom studies with related practical work experiences in the major subject. The principle upon which this concept is based is that learning and individual development are greatly enhanced when the concepts studied in the classroom are periodically applied, tested and observed by the students in meaningful work situations. Through this program, participating industries have an excellent opportunity to observe and enhance the education of bright enthusiastic students. They also benefit from the access gained to university faculty and expertise, while university faculty and students become aware of the concerns of industry and the technical problems which they face.

"Co-operative Education" notation is entered on the parchments and academic transcripts of undergraduate students who successfully complete Co-operative Education requirements in addition to their regular degree requirements.

Admission Requirements for Undergraduate Co-operative Education Programs

Application for admission to the program is normally after the first semester of Year 1. Final decision on admission to the program is made at the end of the second semester.

Students should make application for admission to the Co-operative Education program on a special form obtainable from the Co-operative Education Office. Students will be admitted to the Co-operative Education program on the basis of their formal academic achievement and interviews with the Liaison Officer of the Co-operative Education Programs, and the appropriate departmental Co-operative Education Advisor.

The normal prerequisite for admission to the Co-operative Education program in a regular Bachelor of Science program is a minimum cumulative quality point average of 2.50 and a minimum quality point average of 3.00 in the course(s) of the student's declared major subject(s).

Students will be admitted to the Co-operative Education program on the basis of their interest, aptitude and assessed ability to combine successfully the academic requirements of a major or honors science program together with the special work term requirements of the Co-operative Education program they wish to

Requirements for Continuance in and Graduation from the Co-operative Education Program

a. Students must complete all of the regular requirements for a Bachelor of Science degree (see regulations 1 through 13 above). Since individual programs may have specific additional requirements for Co-operative Education students, students should consult the appropriate departmental section of this Calendar for a description of these regulations.

b. In addition to the above requirements, students must officially register for and complete a minimum of four work terms as specified by the department of their major program (see regulations below and departmental Co-operative Education regulations). Official registration is on the regular forms.

c. To continue in and graduate from the Co-operative Education program, students must earn a minimum cumulative quality point average of 2.50 with a minimum quality point average of 3.00 in all courses in their major subject(s).

Policies and Regulations Governing Co-operative Education Work Terms

a. The University will make every effort to locate work term positions for Co-operative Education students in academically related areas of employment, but cannot guarantee placements. Employment settings may also be identified by Co-operative Education students, but require the approval of the Liaison Officer, Co-operative Education Programs, in consultation with the appropriate departmental Co-operative Education Advisor.

b. The satisfactory fulfillment of Co-operative Education work terms require:

(i) the completion of four terms of work experience in academically related, paid employment situations of 13 to 16 weeks duration. Under certain circumstances, and with the approval of the appropriate department, students may be permitted to satisfy their work term requirements in an unpaid position.

(ii) a satisfactory employer evaluation for each Co-operative Education work term;

(iii) the satisfactory completion of a written report submitted within 30 days after the end of each work term detailing the student's work experience in accordance with departmental standards and expectations.

c. A notation will be included on students' academic transcripts following satisfactory completion of each work term.

d. Graduating students who have successfully completed their Co-operative work term requirements will have this noted on their academic transcripts. If, in addition, all other normal academic requirements are fulfilled, a "Co-operative Education" notation will be printed on their parchments.

e. Students may be required to withdraw from the Co-operative Education program if:

(i) they are dismissed from, quit, or fail to accept an appropriate and approved Co-operative work term position;

(ii) they fail to submit or successfully complete a work term report;

(iii) they do not maintain the required quality point average necessary for continuance in the Co-operative Education program;

(iv) in the judgement of their department, they are no longer suited for the particular requirements of the Co-operative Education program.

f. Students who voluntarily withdraw from or who are required to withdraw from the Co-operative Education program may remain enrolled in and continue with the major or honors degree program offered by their department.

g. Co-operative Education students will be expected to attend any special seminars or colloquia developed by the Co-operative Education Office which deals with employment orientation and the application of formal academic study to work experiences.

h. Since academic study during work terms is discouraged, registration in any courses during a work term requires the approval of the Dean of Science or appropriate departmental Co-operative Education Advisor. If approval is granted, no more than one credit (1.0) may be taken during a work term.

Fees for Co-operative Education

a. Students are required to register for all work terms at the Registrar's Office, according to normal registration procedures. Work terms will be officially designated on students' transcripts as:

- Work Term 1 = COP 100.1(.2)
- Work Term 2 = COP 200.1(.2)
- Work Term 3 = COP 300.1(.2)
- Work Term 4 = COP 400.1(.2)

b. Students pay for their academic courses as they take them.

c. Students pay a fee equivalent to the tuition for a full-credit course for each work term they undertake. This amount is paid to the Business Office within one month of the start of the work term.

A sample Co-operative Education study program for Science majors is presented below:

Year	Fall	Winter	Summer
1	AT1	AT2	—
2	AT3	AT4	WT1
3	WT2	AT5	WT3
4	AT6	WT4	—
5	AT7	AT8	—

In general, the Co-operative Education program takes one year longer to complete than the corresponding traditional program, but the academic content of both is the same. Students may, with the permission of the Department, transfer from the Co-operative Education program to the non Co-operative Education program.

Dual Bachelor Degree Program

Since it is possible to pursue two bachelor degrees from Saint Mary's University, students may desire to arrange their courses so as to obtain a bachelor degree in any two of the following three Faculties: Arts, Science, or Commerce.

While the total time required is somewhat longer, such dual degree programs are quite feasible. Students who contemplate pursuing a dual degree program should consult with the Deans of both Faculties before embarking on their program of study.

If a student opts to graduate after completing only one of the degree programs, and subsequently wishes to complete the second program, the requirements are those for a second undergraduate degree as stated in academic regulation 24.

Information concerning the Faculty of Science's programs at the graduate level is found later in this Calendar.



Chemists at work

Division of Engineering

Andrew T. Seaman, Director

General Information

Engineering studies at Saint Mary's University provide the first two years of the Bachelor of Engineering degree in Association with the Technical University of Nova Scotia. Students follow a core program leading to the Diploma in Engineering or a Bachelor of Science and a Diploma in Engineering upon completion of their courses at Saint Mary's.

Entrance Requirements

Students must have Nova Scotia Grade 12 (or equivalent) including the following five courses with an average of at least 65%:

- English 441
- Mathematics 441
- Physics 441
- Chemistry 441
- One other 441 course.

The enrollment in Year 1 of the Diploma program is limited to a maximum of 100 students.

Requirements for the Diploma in Engineering

Two Year Diploma After Nova Scotia Grade 12 or Equivalent

EN 106.1(.2)	Engineering Design Graphics
EN 107.1(.2)	Design and Descriptive Geometry
EN 203.1(.2)	Engineering Mechanics (Statics)
EN 204.1(.2)	Computer Science
MA 210.1(.2)	Introductory Calculus I
MA 211.1(.2)	Introductory Calculus II
PH 205.0	University Physics
CH 203.0	General Chemistry for Engineers
EN 201.1(.2)	English Composition
EN 202.1(.2)	An Introduction to Literature

EN 300.1	Dynamics of Particles
EN 302.2	Dynamics of Rigid Bodies
EN 303.1(.2)	Fluid Mechanics
EN 306.1(.2)	Engineering Thermodynamics
EN 304.1(.2)	Mechanics of Deformable Bodies
EN 308.1(.2)	System Dynamics (Electric Circuits)
EN 301.1(.2)	Topics for Engineering Students
MA 310.1(.2)	Intermediate Calculus I
MA 311.1(.2)	Intermediate Calculus II

Elective (humanities or social sciences), 1.0 credit

To qualify for a Diploma in Engineering, each student is required to achieve a minimum cumulative quality point average of 2.0.

Three Year Bachelor of Science (General) Plus Diploma After Nova Scotia Grade 12 or Equivalent

This program entails an extra year of five credits (5.0), as listed below, after the two year Diploma program.

- Mathematics elective at 400 level (1.0 credit)
- Chemistry elective at 300 level or above (1.0 credit)
- Physics elective at 300 level or above (1.0 credit)
- Electives (humanities or social sciences) at 200 level or above (2.0 credits)

Bachelor of Science with Major in Mathematics Plus Diploma in Engineering

In this program, each student must receive credit for:

- One university credit (1.0) in English, normally EGL 201.1(.2) or 202.1(.2);
- Two credits (2.0) in the humanities in addition to (a).
- "Humanities" are Classics, History, Modern Languages, Philosophy (Religious Studies);
- PHY 205.0 University Physics, and CHE 203.0 General Chemistry for Engineers;

d. Division of Engineering Requirements:

EN 106.1(.2)	Engineering Design Graphics
EN 107.1(.2)	Design and Descriptive Geometry
EN 203.1(.2)	Engineering Mechanics (Statics)
EN 300.1	Dynamics of Particles
EN 302.2	Dynamics of Rigid Bodies
EN 303.1(.2)	Fluid Mechanics
EN 304.1(.2)	Mechanics of Deformable Bodies
EN 306.1(.2)	Engineering Thermodynamics
EN 308.1(.2)	System Dynamics (Electric Circuits);

e. Department of Mathematics and Computing Science Requirements:

CSC 226.1(.2)	Introduction to Computer Programming I
CSC 227.1(.2)	Introduction to Computer Programming II
MAT 210.1(.2)	Introductory Calculus I
MAT 211.1(.2)	Introductory Calculus II
MAT 310.1(.2)	Intermediate Calculus I
MAT 311.1(.2)	Intermediate Calculus II
MAT 320.1(.2)	Linear Algebra I
MAT 321.1(.2)	Linear Algebra II
MAT 405.1(.2)	Differential Equations I;

f. a minimum of three and one-half additional credits (3.5) in Mathematics and Computing Science courses chosen by the student in consultation with the Department of Mathematics and Computing Science. These courses must be numbered 207 or above, must not include MAT 301.1(.2), and at least 1.5 credits must be at the 400 level or above.

g. sufficient elective courses to complete the requirements for a Bachelor of Science degree program.

Note: In conformity with academic regulation 7-c(i), students must achieve a minimum cumulative quality point average of 1.50 in order to qualify for graduation.

With a Saint Mary's University Diploma in Engineering and without examination students may enter the Technical University of Nova Scotia and obtain the degree of Bachelor of Engineering (Civil, Mechanical, Electrical, Chemical, Mining, Industrial, Agricultural, or Metallurgical) on the successful completion of the Technical University of Nova Scotia portion of the Bachelor of Engineering program. Applicants for the Bachelor of Engineering program cannot be guaranteed that they will gain entry to the department of their choice since all departments are subject to a known maximum number of annual admissions. Thus students are required to specify their choice of at least three departments, in preferential order, and at a predetermined date departments will select students for admission, the basis for selection being the academic performance of the applicants. The length of the Technical University of Nova Scotia program normally is three years.

The objectives of the Engineering programs at Saint Mary's University are to offer programs, accredited by the Associations of Professional Engineers of the Provinces through the Canadian Accreditation Board, which will assist students in developing the following qualities:

- a basic scientific understanding
- a competence in engineering design
- creativity
- social understanding
- an appreciation for continued learning.

Faculty of Education

Dr. Terry Piper, Dean

Bachelor of Education

General Information

This program is designed to give university graduates a professional foundation for a career in teaching. This is a full-time program of one academic year which prepares students to teach at the junior and senior high school levels.

There are two specific goals: the first, to assist the Bachelor of Education student to develop a basic competence in the skills of teaching academic subjects; the second, to lead the Bachelor of Education student into a deeper study of the aims and the process of education.

Requirements: Regular Program

1. Applicants must hold a bachelor's degree from a recognized university with a minimum average of B (or equivalent) in order to be considered for admission. It should be noted that admission to the Bachelor of Education program is on a competitive basis.
2. Admission may be refused in cases where the applicant lacks the academic background necessary for course work related to, and practice teaching in, a secondary school subject for which the Faculty offers teacher preparation, or where the applicant is otherwise deemed unsuited for teaching.
3. Applicants are expected to provide evidence of prior experience in an instructional capacity or in working with children or youth.
4. Students normally complete the following program:

EDU 501.0 Philosophy of Education
 EDU 502.0 Psychology of Education
 EDU 503.0 Classroom Processes
 EDU 504.0 History of Education
 EDU 550.1 Special Education
 EDU 591.1(2)/592.1(2) Practice Teaching
 EDU 595.1 Orientation to Teaching

The Bachelor of Education student chooses two from the following:

EDU 521.1(2) through 549.1(2) Content and Methods of Specific Fields.

5. In the first semester, the regular Bachelor of Education program begins with "Orientation Days" prior to the commencement of classes. An "Early School Experience" is provided for all students during September and October. During Early School Experience, students spend the equivalent of one full day per week in a classroom situation assisting the regular teacher. Details and dates of Orientation Days and Early School Experience are provided to students after they are accepted into the program.

The required courses are not intended to be independent one of the other. Rather they are to be considered integral parts of a whole with the overall organization of the courses modified and adjusted from time to time to conform to best practice.

The Faculty of Education produces each year a Bachelor of Education Handbook which outlines the program in greater detail.

Requirements: Special Programs

1. Graduates of the Nova Scotia Teachers College who have since acquired the degree of Bachelor of Arts, Commerce or Science at Saint Mary's University may apply to enter the Bachelor of Education program. Students are required to complete successfully two credits (2.0) in Education approved by the Dean of Education or designate.
2. Graduates of the Nova Scotia Teachers College who have acquired an undergraduate degree at a recognized university other than Saint Mary's University may apply to enter the Bachelor of Education program. These students are required to complete successfully a minimum of five credits (5.0) at Saint Mary's University approved by the Dean of Education, two of which are in Education.
3. Graduates of Nova Scotia Teachers College who hold the Associate of Education or its equivalent may apply for admission to a

program leading to a Bachelor of Education in Association with the Nova Scotia Teachers College degree. Students are required to complete successfully five credits (5.0) approved by the Dean of Education or designate. Three credits (3.0) must be in the Faculty of Arts, Commerce or Science and at the 300 or 400 level; and two credits (2.0) in the Faculty of Education at the 500 level.

Normally, the Education courses provided for this degree program are: EDU 507.0 (Sociology of Education) and EDU 508.0 (Introduction to Comparative Education).

4. Vocational teachers may apply for admission to a program leading to the degree of Bachelor of Education (Vocational). Such teachers must have met the requirements outlined under the admission requirements for the Faculty of Arts degree program for vocational teachers; and hold a Bachelor of Arts, Science, or Commerce degree from, or be enrolled in a Bachelor of Arts program at, Saint Mary's University. The student may receive the Bachelor of Education (Vocational) degree after completing three Education credits (3.0) approved by the Dean of Education and after the awarding of the Bachelor of Arts, Science, or Commerce degree from Saint Mary's University.

5. Graduates of a teachers' college in another province of Canada or of a college of education in the United Kingdom or of a teacher training college in the United States; who have had professional teacher training of at least two years' duration; who are licensed as teachers by the Province of Nova Scotia; and who have acquired a bachelor's degree (a) from Saint Mary's University may apply for admission to the Bachelor of Education program. Students are required to complete successfully two credits (2.0) in Education approved by the Dean. (b) Graduates from a recognized university other than Saint Mary's University may apply for admission to the Bachelor of Education program. Students are required to complete successfully five credits (5.0), two (2.0) of which must be in Education and that have been approved by the Dean.

Application Procedure: Regular Program

1. Complete application forms and make sure that all documents required are complete and returned with the application.
2. Ensure that supporting documents (transcripts, references, etc.) are sent to the University. The Director of Admissions does not undertake to send for transcripts or references.
3. Applications with all supporting documents should be received by the Director of Admissions, Saint Mary's University, by 1 February.
4. Applicants may be required to attend a personal interview with the Dean or designate as part of the admission procedure.

Application Procedure: Special Programs

1. Complete application forms and make sure that all documents required are complete and returned with the application.
2. Ensure that supporting documents (transcripts, references, etc.) are sent to the University. The Director of Admissions does not undertake to send for transcripts or references.
3. Applications, with all supporting documents, should be received by the Director of Admissions, Saint Mary's University, by 1 February.
4. Applicants may be required to attend a personal interview with the Dean or designate as part of the admission procedure.

Registration Procedure: Bachelor of Education (Regular Programs)

All students accepted into this program are required to register by mail. Failure to complete registration by the stated deadline may result in the withdrawal of admission status.

Certification

On successful completion of the Bachelor of Education program students may apply to the Department of Education of the Province of Nova Scotia for a teaching certificate. Students are entirely responsible for any negotiations with that department respecting the certification.

It is the students' responsibility to determine what category of licence they will receive from the issuing authorities. While the Faculty of Education Office will post whatever information is received from the

Ministries of Education, the University will not assume responsibility for guaranteeing the precise level of licence which faculties will receive from different provinces upon completion of the Bachelor of Education program.

Academic Regulations

Students should note that the pass mark for the entire program is a C average, while for individual courses the pass mark is D, with the exception of EDU 591.1(.2), 592.1(.2), and 593.1(.2), Practice Teaching, for which the pass mark is C. No supplementary examinations are provided.

The standing of students is reviewed by the Faculty at the end of the first semester. On the basis of the likelihood of successful completion of the program, the Faculty decides either to confirm, terminate, or continue candidacy on a probationary basis.

Information concerning the Faculty of Education's programs at the graduate level is found later in this Calendar.

Educational Exchange Programs for National and International Study

Year of Study Abroad: China

Up to five scholarships are awarded yearly to Saint Mary's University students for study at Shandong Teachers' University, Jinan, People's Republic of China. The scholarship includes full tuition, room and board, but not travel expenses or a living allowance. A program of study including a course in the Chinese language is designed by the Faculty of Shandong Teachers' University for the students selected. The study period is for ten months and credits may be applied towards the Bachelor of Arts degree at Saint Mary's University. For further details please contact the Office of the Dean of Arts.

Year of Study Abroad: Angers, France

Many years ago Saint Mary's University entered into an arrangement whereby qualified students have the opportunity to study at the Centre International d'Etudes Françaises (C.I.D.E.F.) de l'Université Catholique de l'Ouest in Angers, France. Permission to participate in this program is granted by the Dean of Arts, the Chairperson of the student's area of concentration, and the Chairperson of the Modern Languages and Classics Department. Usual registration procedures are to be followed, except that tuition fee payments must be made directly to the University of the West.

Study at the Université du Québec

Special arrangements exist for students, competent in the French language, to undertake regular studies at the Université du Québec à Chicoutimi, Rimouski or Trois Rivières, and to receive credit for these studies towards their Saint Mary's degree. Further details are available at the Registrar's Office.

Nova Scotia/New England Student Exchange Program

Saint Mary's University is also a participant in the Nova Scotia/New England Student Exchange Program. Currently there are 17 New England post-secondary institutions participating, including - in Connecticut: Quinnipiac College, Sacred Heart University; in Maine: Saint Joseph's College, University of Maine at Fort Kent, University of Maine at Presque Isle; in Massachusetts: Anna Maria College, Bridgewater State College, Fitchburg State College, Framingham State College, Gordon College, Nichols College; in New Hampshire: Colby-Sawyer College, University of New Hampshire; in Rhode Island: Bryant College, University of Rhode Island; in Vermont: Johnson State College, Lyndon State College.

The most important feature of the program is that accepted students in either their junior or senior year of study at participating Nova Scotia institutions remain registered full-time at their home institutions and pay tuition and academic fees there. Any existing Canadian financial aid may be maintained. Further details are available at the Registrar's Office.

Study in Vietnam

In December 1993, Saint Mary's University signed enabling agreements with six Vietnamese Universities, with emphasis in language and commerce areas. These institutions are: Hanoi University for Teachers of Foreign Languages; Ho Chi Minh City Polytechnic University; Ho Chi Minh City University of Education, Vietnam; National Economic University, Hanoi, Vietnam; University of Economics, Ho Chi Minh City, Vietnam; and Hanoi Foreign Language College, Vietnam.

Other Exchange Programs

Other official exchange agreements have also been negotiated with The Bermuda College; the University of Newcastle-Upon-Tyne; Oslo Business School; and the University of Sussex. Further details are available at the Registrar's Office.

Pre-Professional Programs

Professional Schools

Students who intend to continue studies at professional schools, such as Theology, Law, Medicine, Architecture, Education, and Dentistry, should ensure that their plan of studies includes courses needed for admission to the appropriate professional schools. Calendars of professional schools may be consulted in the Library.

Though not strictly required by some professional schools, it is recommended that the student complete an undergraduate degree before seeking admission to a professional school. Prerequisite course requirements apply to pre-professional students.

Pre-Medical

Students intending to study medicine should have an impressive academic record as a basic qualification for admission into medical school.

The following subjects are the normal minimum requirements of many Canadian medical schools: General Biology, General Chemistry, Organic Chemistry, Physics and English, each of an academic year's duration. Students should extend their studies beyond the minimum requirements and are encouraged to include subjects in the humanities and social sciences in their program. In addition to the academic factors, medical schools also take into consideration several other criteria such as the Medical College Admission Test, interviews, and non-academic factors such as emotional stability, social values, leadership, personal maturity, motivation, etc.

Effective September 1991, Dalhousie University required applicants to hold a university degree but does not require any specific prerequisite courses. For complete details, the student should consult the academic calendar of the university to which admission is sought.

Pre-Dental

The preceding information is equally applicable to the Pre-Dental program. The students interested in complete information should consult the academic calendar of the university to which admission is sought.

Pre-Optometry

The University of Waterloo's School of Optometry accepts a limited number of students from the Atlantic Provinces to its program of Optometry.

Applicants are considered from students who have entered a university with Nova Scotia Grade 12 or its equivalent and completed at least one year of university study with courses in Chemistry, Physics, Biology, Mathematics and Psychology. Applications obtainable from the University of Waterloo are submitted to the Ontario Universities' Application Centre.

Pre-Veterinary

Students with high academic standing in science, especially Biology or Chemistry, are considered by Atlantic Veterinary College, Charlottetown, P.E.I., and Ontario Veterinary College, University of Guelph. The University of Saskatchewan also accepts competitive students into their Veterinary Medicine program. The University of British Columbia offers a two-year Pre-Veterinary program leading to a four-year Veterinary program at the University of Saskatchewan.

Prospective students should contact the veterinary college of their choice for specific information.

Pre-Occupational Therapy

The School of Occupational Therapy, Dalhousie University, considers, on an equal basis, students who have completed their prerequisite courses at any recognized university. It is recommended that interested students consult the School of Occupational Therapy, Dalhousie University, to determine acceptable prerequisite courses. Since enrollment in the program is limited, applicants should note that admission is on a competitive basis with preference given to residents of the Atlantic Provinces. Selection is based on completion of prerequisites, academic achievement, and personal suitability for occupational therapy. Application packages are available through the

Registrar's Office, Dalhousie University. The application deadline is March 1.

Pre-Law

Students applying for admission to the Law School are required to submit results of the Law Schools Admission Test (LSAT) of the Educational Testing Service, Princeton, New Jersey. Information for taking this test at Canadian universities can be obtained from the Law School. Dalhousie University considers applications from students who have completed at least two full years' studies in a program leading to the degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Commerce. Applications are considered as they are received or in the month of June.

Pre-Architecture

Saint Mary's University, in association with the Technical University of Nova Scotia, offers the first two years of a six-year program in Architecture leading to a Bachelor of Architecture degree.

Qualification for entrance to the Architecture program at the Technical University of Nova Scotia is the satisfactory completion of at least two years in a degree program at any university or equivalent institution recognized by the Faculty of the School of Architecture. A university course in Mathematics is prerequisite, except that the Admissions Committee may instead require a written examination in this subject.

Providing it has been undertaken in a 'recognized' degree program, virtually any course of studies - including Arts, Fine Arts, Engineering and other technologies, Science, Agriculture, Social Sciences, Education, Medicine - is acceptable.

Selection from qualified students for admission to the School of Architecture is carried out by a Selection Committee of the Faculty of the School of Architecture.

Pre-Theological Courses

Students who are candidates for the Christian Ministry are in most cases required to obtain a Bachelor of Arts degree, or its equivalent, before proceeding to Theology. Normally the Bachelor of Arts degree will be followed by three years in Theology. Requirements may vary somewhat from one denomination to another, but generally speaking students are advised to select a broad range of subjects from such departments as English, History, Philosophy, Classics, Psychology and Sociology, along with some course in Religious Studies. A working knowledge of Greek is desirable for students entering Theology.

Pre-Education

Students intending to pursue a career in teaching must apply to enter Bachelor of Education program after completing a Bachelor's degree in Arts, Science, or Commerce. Those persons who wish to teach at the secondary school level should undertake a program in the first Bachelor's degree that will develop sound academic preparation in a subject area normally taught at the secondary school level. Students wishing to teach at the elementary level should develop a program in the first Bachelor's degree which has a breadth of academic courses. Students who plan on applying to enter a Bachelor of Education program should determine the course requirements for the particular university where they plan to attend.

Pre-Professional Counselling Committee

Because of the severe competition for admission to graduate and professional schools, the Faculty of Science organized a Pre-Professional Counselling Committee in 1977. This Committee of faculty members compiles up-to-date information on graduate and professional schools and advises students of the closing dates for admission to these schools and the dates of various admissions tests. The Committee also gives guidance to students on how they can best prepare for the admission tests and some interviews.

Students (from any Faculty) who are interested in applying to graduate or professional schools are urged to contact the Office of the Dean of Science for further information on the Counselling Committee. These students should also regularly check the Counselling Committee Bulletin Board located on the third floor of the Science Building.

Graduate Programs

General Requirements

The University offers programs of study leading to graduate degrees in the following academic areas:

- Master of Arts in Atlantic Canada Studies
- Master of Arts in Education
- Master of Arts in History
- Master of Arts in International Development Studies
- Master of Arts in Philosophy
- Master of Arts in Sociology and Criminology*
- Master of Business Administration
- Master of Education
- Master of Science in Astronomy
- Master of Science in Applied Psychology

Subject to the approval of the Maritime Provinces Higher Education Commission.

The program of each student is administered by the academic unit concerned. Each student shall comply with the general regulations, degree requirements, and any additional requirements of the appropriate academic unit.

Qualifications for Admission

Admission is limited and at the discretion of the Department concerned. General, as well as program-specific admission requirements have been established as a guide to applicants. Satisfaction of these minimum requirements does not establish the right of the applicant to be admitted or readmitted to the University. The University reserves the right to accept or reject any applicant. Acceptance is valid only for the two summer sessions preceding the academic year (i.e., May to August) and the academic session (September to May). It cannot be deferred. An applicant who does not register in this twelve month timeframe must reapply for admission. Admission is not guaranteed. Once admitted to the University, the student agrees to abide by any and all rules and regulations affecting students officially passed and duly promulgated. If the student agrees that failure to abide by such regulations and conditions may result in expulsion from the University without refund of tuition or any other fees paid by the student to the University. To be considered, an applicant shall hold a bachelor's degree or its equivalent from an institution recognized by the Senate and shall have a knowledge of the proposed field of specialization satisfactory to the Department concerned (or Departments, when interdisciplinary study is intended).

Preference will be given to applicants who hold an honors degree. In addition, admission will be granted only to those students who show a high promise of success in post graduate study as demonstrated by the results of appropriate tests and their records of previous academic accomplishment. See the regulations listed under each graduate program for specific additional minimum requirements for admission to that program.

Applicants whose mother tongue is not English may be required to demonstrate an appropriate level of proficiency in English.

Procedure for Admission

Application for admission shall be made to the Director of Admissions. Applicants shall arrange to have forwarded to the Director of Admissions an official transcript of their academic record and letters of recommendation from at least two persons in a position to judge the applicant's capacity for graduate study. Application forms and all supporting documents must ordinarily be received by May 31 of the academic year prior to the one for which admission is sought.

Successful applicants will be notified by the Director of Admissions.

Registration

Registration of students in graduate studies shall take place at the times indicated in this Calendar and the *Registration Book*, published annually.

Students are not permitted to register until they have received notification of acceptance.

Students can register on either a full or part-time basis depending on the terms of acceptance to their graduate program and

with the permission of the Department Chairperson/Director. The normal academic and fiscal definitions of full-time and part-time, as delineated in the academic regulations in Sections 2 and 6 of this Calendar, apply except in the instance where official verification has been received by the Registrar from a student co-signed by the Department Chairperson/Director indicating that the individual is working on a full-time basis on a dissertation, thesis, major research paper/project, or is employed on an official Co-operative Education work term. The verification is valid only for a single academic term but can be extended on the authorization of the Department Chairperson/Director.

4. Program of Study and Research

a. Students entering with an honors degree (or equivalent) must complete four credits (4.0) and submit an acceptable thesis. On the recommendation of the Department concerned, a three credit (3.0) program is permissible for a student undertaking a proportionately more demanding thesis. In Departments authorized by the Committee on Graduate Studies, a five credit (5.0) program, without thesis, is also acceptable for the degree. Courses in all programs must be at the 500 or 600 level, but where advisable, courses at the 400 level may be included in a program, provided that the requirements applying to graduate students in such courses be of a graduate standard.

b. On the recommendation of the appropriate Department or Graduate Council, a maximum of twenty percent of the credits required for a graduate degree in Education, Astronomy, Philosophy, History, Psychology, and Atlantic Canada Studies at Saint Mary's can be recognized for graduate courses previously completed at another recognized academic institution and not previously used in the fulfillment of the requirements for another degree. In the case of the MBA Program, the maximum number of such transfer credits is five (5.0).

c. A student may be required to audit a course as part of the program of study.

d. Where required, a student shall submit a thesis on a subject approved by the Department in which research has been conducted under the direction of a supervisor appointed by the appropriate Department(s). An oral defense in the presence of an Examining Committee appointed by the Department is mandatory.

e. Changes in either the program of courses or the topic of the thesis require the approval of the Department.

5. Period of Study

The maximum period of a Master's degree program in Astronomy, Education and History shall be five years, and six years in International Development Studies, the MBA, and Atlantic Canada Studies. For Philosophy and Psychology, the maximum period is three years for students with full-time admission status and five years for students with part-time admission status. Extensions may be granted. In order to establish a uniform standard across the University for the extension of Senate deadlines for completion of graduate degrees and for the re-admission of those graduate students who did not complete their graduate degree during the specific period of time, Department Chairpersons and/or Program Coordinators concerned must make their recommendations on either of the above matters to the Graduate Studies Committee which will consider the matter and communicate its final decision to the Chairperson of the Department or the Coordinator of the Program.

Students may apply to the Committee on Graduate Studies through their Department Chairperson/Director for official withdrawal, for non-academic reasons, from their graduate program. If granted, students would then be required to reapply for admission at the point in time when they are in a position to resume their studies. If readmitted, the Department Chairperson/Director would be responsible for delineating the terms of readmission, including the outstanding academic requirements and the deadline for completion of the entire graduate program.

6. Evaluation

In order to qualify for a Master's degree a student shall obtain a quality point average of 3.00. Failure of any full course (or the equivalent) ordinarily will require withdrawal from the program. In

exceptional circumstances, the Department and the Dean of the Faculty concerned may allow the student to remain in the program. In such a case, failure of a second full course (or equivalent) will require withdrawal from the program.

a. Letter grades and quality points for graduate courses will be assigned as follows:

A+	= 4.00	= Excellent
A	= 4.00	= Excellent
A-	= 3.67	= Very Good
B+	= 3.33	= Good
B	= 3.00	= Satisfactory
B-	= 2.67	= Below graduate standard
C	= 2.00	= Marginal pass
F	= 0.00	= Failure
IP	= —	= In Progress (Reserved exclusively for thesis, dissertation, major research paper/project, and practicum courses; also for Co-operative Education work terms.)

b. The following grades shall be given when appropriate but will not be calculated in the quality point or cumulative quality point average:

Aegrotat	AE
Authorized withdrawal from a course	W
In progress	IP

Grades earned on advanced standing and transfer courses are also not included in the calculation of averages.

c. In the case of advanced standing and transfer courses, credit will not be awarded for less than a grade of B (or the equivalent).

7. Thesis (if required)

a. To be eligible for graduation at Spring Convocation, the student's finished thesis must be submitted to the Department no later than the last day of classes of the regular academic year and by 30 September for Fall Convocation.

b. The thesis must be ruled acceptable by the Examining Committee appointed by the Department. Any suggestions by the Committee concerning corrections, additions and other necessary changes must be either carried out or formally refuted by the students before the thesis can be accepted.

c. The Student's Responsibilities

(i) The thesis must be submitted in the following form:

(a) Paper: Good quality bond paper, 21.5 cm (8 1/2") x 28 cm (11")

(b) Typing: Double spaced

(c) Margins:

– Left hand margin: 4 cm (1 1/2")

– All other margins: 2.5 cm (1")

(d) Abstract:

– Length: approximately 300 words

– Must be typed

– Should bear the title "Abstract" and include the name of the author, the title of the thesis and the date of submission.

(e) Signature Page: A page designed to contain the signature of all members of the Examining Committee, including any external examiners, if applicable.

(ii) The student must also meet any additional requirements of the Department concerned.

(iii) The student must submit one original and two (2) copies of the accepted thesis with the binding fee of \$33.00 to the Registrar. A duplicate receipt for this amount must accompany the unbound thesis when delivered to the library, as proof of payment.

(iv) A completed "Permission to Microfilm" form must also accompany the above. This form, from the National Library of Canada, Canadian Theses Division, is available from Information Services in the Library. It grants permission for the microfilming of thesis and the sale of the microfilm.

d. The Library's Responsibilities

(i) The Library arranges for the binding of all accepted theses.

(ii) Original copies of Master's theses are sent to the National Library in Ottawa for microfilming before they are bound and placed in the archives.

(iii) Copies of the theses are bound and distributed as follows:

(a) One copy is sent to the student's Department;

(b) One copy is catalogued and made available through the General Collection of the library; and

(c) One copy (the original) is placed in archives and remains as non-circulating material.

(iv) The Library will accept for binding additional copies of a thesis only if the student provides the extra copies and pays the additional binding fee of \$11.00 per copy. (Proof of payment in the form of a duplicate receipt must accompany additional copies.)

8. Academic Regulations

Section 2 of this Calendar contains the University's academic regulations. While many of these pertain primarily to undergraduate students, the attention of students in graduate programs are specifically directed to the following regulations:

1. Number of Courses in a Year
2. Auditing Courses
4. Grading System
5. Undergraduate Rating, Grades and Quality Points (all except subsections a. and c.)
6. Quality Point Average
7. Standing Required
8. Examinations
9. Evaluations
10. Special Examinations
11. Academic Appeals
12. Credit without Final Examination
13. Course Changes
16. Withdrawing from a Course
17. Retaking a Course
18. Withdrawal for Academic Reasons
19. Academic Responsibility
20. Advanced Standing
21. Transfer Credit
27. Convocation Dates, Degrees and Diplomas
28. Degree or Diploma in Absentia
29. Distinctions
30. University Medals
32. Students' Academic Records and Transcripts

Graduate students are also advised that the information in the registration portion of Section 2 of the Calendar applies, in most instances, to them.

9. Specific Requirements of Academic Units

In addition to the above requirements, students must comply with any additional requirements of the Department concerned. These are delineated below and also in Section 5 of this Calendar.

10. Financial Regulations

Please consult Section 6 of this Calendar for details on all applicable fees.

Faculty of Arts – Graduate Programs

The Faculty of Arts offers four graduate programs in the areas of Atlantic Canada Studies, History, International Development Studies, and Philosophy. A fifth program, that in Sociology and Criminology, will be available, subject to the approval of the Maritime Provinces Higher Education Commission.*

Master of Arts in Atlantic Canada Studies

Committee on Atlantic Canada Studies

Dumaineau, Coordinator	Political Science
Bennett	Sociology
Byrne	English
Chamard	Management
Charles	Finance and Management Science
Christiansen-Ruffman	Sociology
Cone	Biology
Connolly	Sociology
Davis	Anthropology
Day	Geography
Freid	Modern Languages and Classics
Harry	English
Howell	History
Kiesekamp	History
MacDonald	Economics
MacKinnon	English
McCalla	Geography
McGee	Anthropology
McLeod	Geography
Morrison	History
Morris	Political Science
Parmer	Sociology
Reid	History
Robinson	Geography
Seaman	English
Twomey	History
Veilmeyer	Sociology
Wadron	Geology
Whalen	English
Wiles	Biology
E.A.	graduate student representative
E.A.	undergraduate student representative

The Faculty of Arts at St. Mary's University offers an interdisciplinary program in Atlantic Canada Studies (ACS) that integrates the teaching and research expertise of 30 faculty members in ten different Departments.

The program was established in 1975 in response to a clearly defined need for regional research and as a unique experiment within the growing area of Canadian studies. At the time, a study of higher education had concluded that there was a remarkable level of ignorance in Canada about the Atlantic Region.

There are sound intellectual and practical reasons for pursuing an interdisciplinary program of regional studies. It offers a unique combination of social-scientific and cultural-historical perspectives. The program takes an interdisciplinary approach to three areas of specialization: the culture, political economy, and resource development of the region. Students learn to apply the conceptual perspectives and analytical tools of one or more academic disciplines to their research and study.

There are particular advantages to an interdisciplinary approach to regional study. This applies, for instance, to people employed by government at various levels. It also applies to managers in public and private enterprise, members of the teaching profession, business and policy makers, and individuals whose occupation requires them to deal with social, economic, political, or cultural problems. For many of these people, a broad understanding of the region's political economy and culture is vital.

Admission to the program is through an honors degree in Atlantic Canada Studies, or a degree which the ACS Committee deems to be equivalent. At the discretion of the Committee, a student may be

admitted to the program subject to the prior completion of such qualifying work as the Committee shall prescribe. Once the student has embarked full-time on the Master of Arts program, the normal goal is completion within 12 months, although in some cases thesis work may extend beyond this time period. The degree may also be taken through part-time study.

The general requirements for the Master's degree (delineated above) apply to the graduate program in Atlantic Canada Studies.

Specifically, the Master's degree in Atlantic Canada Studies involves the following considerations and includes the following requirements:

1. The normal qualification for entry into the one-year Master's program is an honors degree in Atlantic Canada Studies, or a degree which the Atlantic Canada Studies Committee deems to be equivalent. At the discretion of the Committee, a student may be admitted to the program subject to the prior completion of such qualifying work as the Committee shall prescribe.
2. The ACS Coordinator will work with all Master's students from the earliest stages of their participation in the graduate program to determine the area of a thesis topic and to select a thesis supervisor. The thesis supervisor will be the Graduate Faculty Advisor for the duration of a given student's participation in the program.
3. For the Master of Arts in Atlantic Canada Studies, all students must complete an acceptable thesis. It is not possible to satisfy the requirement for a thesis by means of extra course work.
4. Students are expected to produce a thesis which shows both originality and the analytical-critical skills of sound research and interpretation. The topic must deal directly with an Atlantic Canada subject matter.
5. All students must present and defend a thesis proposal and ultimately a thesis, before a Thesis Examining Committee. This Committee consists of a thesis supervisor, the ACS Graduate Studies Coordinator (or appointee), and a third reader acceptable to the thesis supervisor and the ACS Committee.
6. Students must complete four credits (4.0) at the 600 level approved for the ACS graduate program. Two of these credits (2.0) must be selected from the following ACS seminars:

- ACS 620.0 Culture of Atlantic Canada
- ACS 630.0 Seminar on Atlantic Canada Ecology and Resources
- ACS 640.0 Atlantic Canada Political Economy Seminar
- ACS 660.0 History and Society: The Atlantic Provinces Seminar

7. All students, as part of their four-credit (4.0) program, must complete ACS 690.0. Credit for the course will be determined when the student satisfies the thesis supervisor that both thesis research and all other preparation for the successful handling of the thesis topic have been completed. Supervisors may require a demonstration of language competence or extra course work as preparation for the treatment of certain thesis topics.

The following constitute the offerings in this graduate program. Detailed course descriptions are found in Section 5 of this Calendar.

- 620.0 Culture of Atlantic Canada
- 630.0 Seminar on Atlantic Canada Ecology and Resources
- 640.0 Atlantic Canada Political Economy Seminar
- 650.0 Directed Reading
- 660.0 History and Society: The Atlantic Provinces Seminar
- 690.0 Thesis Research

Master of Arts in History

- | | |
|----------------------------------|---|
| Chairperson, Associate Professor | B. Kiesekamp |
| Professors | O. Carrigan, E. Haigh,
C. Howell, J. Morrison,
J. Reid, R. Twomey, F. Young |
| Associate Professors | R. Bollini, J. Lee, W. Mills |
| Assistant Professor | M. Vance |

Graduate students of History learn techniques of research and analysis which enable them to make critical evaluations, whether in reading a newspaper, studying a report, or in many other fields. Someone with a historical background will be able to look beneath the surface, to question and analyze what is written.

History is a discipline in which students learn to declare themselves after preparing and arguing the best case they can. The ability to

evaluate evidence and make a judgement about it is important for everyone, but especially for people who may later be dealing with evidence in a legal context. It is also useful in business or journalism, where judgements must often be based, as in historical analysis, on evidence that is less than complete.

Historians must communicate the knowledge they gain, and good literacy and communication skills are something a student of History can expect to learn.

Graduate training in History can also be invaluable for more specialized purposes. In addition to working as university scholars, historians are needed in the teaching profession and are employed by such government departments as Parks Canada. There are growing opportunities for contract work writing historical articles and books on commission. A graduate training as a historian also provides a good background for specialization.

The University's general requirements for admission to graduate studies and for the Master's degree apply to the Department of History. Applicants for admission to the graduate program in History must submit a succinct statement of their anticipated field of study and anticipated choice of a thesis topic. The particular requirements of the Department, which include a thesis as well as course work, are as follows:

1. Students with a general Bachelor of Arts must satisfy the course requirements of the honors program in History or its equivalent before entering a one-year Master's program. They must then complete three additional history credits (3.0) at the 500 or 600 level, and HIS 690.0. The program of each student must be approved by the Department.
2. After a review of a student's progress at the end of the first term, the Department may recommend to the Dean that the student be required to withdraw from the program.
3. The student will be required to demonstrate a reading knowledge of at least one language other than English. French is required of students intending to write a thesis on any aspect of Canadian history.
4. The subject of the thesis must be decided in consultation with the thesis advisor.
5. Before presenting a thesis, the student must pass an oral, comprehensive examination in both a major and a minor field. Upon completion of the thesis, an oral defence will be required. Two months prior to this defence, the student will be invited to select an examination board subject to the approval of the Department of History. While the Department will make every attempt to meet individual requests, it cannot guarantee full compliance. No student may enroll in a course at the 600 level without the permission of the Department.

The following constitute the offerings in this graduate program. Detailed course descriptions are found in Section 5 of this Calendar.

600.0	The Discipline of History
603.0	Tudor and Stuart England
604.0	Europe 1848-1899
605.0	History of Russia and the U.S.S.R.
606.0	Images and European History
607.0	Science in the West Since 1500 A.D.
609.0	The Old World and the New: Transformations of European Ideals in Canada and the United States
610.0	Anglo-American History: Studies in Pre-Industrial Labour and Culture, 1600-1865
611.0	Health, Sport and Leisure in Victorian Society
612.0	Medieval Europe: The Birth and Progress of a Great Civilization
613.1(.2)	The First British Empire
614.1(.2)	The British Empire—Commonwealth
616.1(.2)	Africa in the 19th Century, Intrusion and Conquest
617.1(.2)	Africa in the 20th Century, Colonialism and Independence
618.0	The United States in the 20th Century
619.0	Canadian-American Relations
620.0	The Atlantic Provinces and New England 1534-1974
622.0	South Africa
623.0	China Before 1800
624.0	Traditional Japan: History and Culture
625.0	Asian Crossroads: Southeast Asia from 1600 to Independence

626.1(.2)	History of West Africa: 1600 to 1960
629.0	History of Canada 1849-1920
630.0	American Social and Intellectual History
631.0	The American Revolution, 1763-1789
632.0	Canadian Social History, 1760-1930
633.0	History of Canada in the 20th Century
634.0	Myth and History: The Problem of Interpreting Human Existence
639.0	Russia and the U.S.S.R. Since 1917
640.0	History of the Atlantic Provinces
642.0	China in Revolution: 1840 to the Present
643.0	To the Great War
644.0	History of Nova Scotia
646.1(.2)	Black Heritage in Maritime Canada
647.0	Blacks in Canada
649.0	Canadian Labour History
650.0	History of Greece
651.0	History of Rome
660.0	A History of Women in the Western World
661.1(.2)	Canadian Business History, 1820-1867
662.1(.2)	Canadian Business History, 1867-1920
672.1(.2)	Common History: Sources and Methodology
673.1(.2)	Voices of the Past: Oral Research Methodology
674.0	Hanoverian to Victorian Britain
675.0	Modern Latin America
676.1(.2)	Special Topics: U.S. History, 1800-1930
677.1(.2)	679.1(.2) Selected Topics in History
685.0	Aspects of Global History: One Earth, Many Worlds
690.0	Thesis Research
691.0	East Asia and the West
692.0	Modern Japan
693.0	History of British North America, 1763-1867
694.1(.2)	The Emergence of Modern Korea
695.0	Ireland, 1600-1985: From the Plantations to the "Troubles"
696.1(.2)	China and Japan in the 20th Century: Ideology, State and Society
698.0	Early Celtic Britain
699.0	The Lingering Death of Imperial Britain, 1870-1982

Master of Arts in International Development Studies

Committee on International Development Studies

H. Veltmeyer, Coordinator	Sociology
C. Amaratunga	International Development Studies
P. Arya	Economics
G. Barrett	Sociology
G. Cameron	International Development Studies
J. Chamard	Management
T.S. Chan	Marketing
T. Charles	Finance and Management Science
L. Christiansen-Ruffman	Sociology
P. Connelly	Sociology
H. Das	Management
D. Day	Geography
J.C. Dodds	Finance and Management Science
S. Halebsky	Sociology
A. Harvey	Economics
M. MacDonald	Economics
H. Millar	Finance and Management Science
J. Morrison	History
A. Mukhopadhyay	Economics
A. O'Malley, Graduate Advisor	Sociology
H. Ralston	Sociology
J. Sagebien	Marketing
R. Sargent	Education
H. Schwind	Management
E. Tastsoglou	Sociology
L. Van Esch	Marketing
S. Wein	Philosophy
J. Woolfrey	International Education Centre
Adjunct Professors	K. Ahooja-Patel, J. Kirk, S. Patel, T. Shaw

The graduate degree program is based on a core program of policy-oriented courses in the field of International Development Studies in addition to offerings by associated academic Departments, primarily

conomics, Sociology, and History, but also Anthropology, Political Science, Geography, Education, International Business Management and Marketing), and Finance and Management Science.

The interdisciplinary program of courses offered in International Development Studies has as its primary focus an analysis of the problems experienced by developing countries in the Caribbean, Latin America, Asia and Africa; and of the social, cultural, economic, political and political structures and forces that underlie and produce these problems. Another concern of the program is with the development strategies pursued by groups of people and governments in these developing countries. An evaluation of the current models and strategies for national development that countries pursue in an increasingly global context is an important feature of the program.

The graduate program of study will be useful to those seeking employment in national and international settings, as knowledge of the Third World is increasingly needed in many departments of the federal government (CIDA, External Affairs), international development agencies, refugee and immigration services, non-governmental organizations like Oxfam and CUSO, and professions such as teaching, journalism, development planning, administration, and business.

Requirements

The general requirements for the Master's degree delineated above in this section of the Calendar apply to the graduate program in International Development Studies (IDS). The specific requirements and conditions of the Master's degree in International Development Studies are as follows:

Students who have earned an honors baccalaureate graduate degree with a major concentration in International Development (or its equivalent) may be admitted directly into a four credit program (Category I).

Students who have earned an honors baccalaureate graduate degree (or its equivalent) with a minor concentration in International Development (or its equivalent) or practical experience in the field of International Development will be required to take between four and one-half (4.5) and eight (8.0) credits (Category II).

Students who have earned an honors baccalaureate graduate degree with a major concentration in a discipline or a field of study related to International Development will be required to take an eight and one-half (8.5) credit program (Category III).

All students must receive credit for a minimum of four (4.0) and one-half of eight and one-half (8.5) credits. At least one-half of the student's credits must be from Saint Mary's University course offerings.

A minimum average of B (or equivalent) is required for graduation.

All degree requirements must be completed within 5 years of the date of first registration in the program.

Applicants must submit academic transcripts; a statement that describes areas of preparation and interest; and two letters of recommendation from individuals who can attest to their academic or professional competence and/or interest in pursuing graduate training in International Development.

A minimum score of 550 on the TOEFL is required of all international applicants whose native language is not English and whose undergraduate education was conducted in a language other than English.

The Graduate Committee of the IDS Program will review the files of all applicants and determine, on a competitive basis, final admission into the program. Successful students will be advised of the category of their admission and the credit requirements of their program in the letter of acceptance.

For the Master's degree, all students must complete and receive credit for the following courses:

IDS 600.0 Development in a Global Context and IDS 610.1(.2) Problems in International Development.

One of:
 IDS 620.1(.2) Research Methodology;
 IDS 630.1(.2) Contemporary Development Planning;
 ECO 5250 Program and Project Evaluation (Dalhousie University);

ES 5020 Development and Environment Planning (Dalhousie University).

- c. One of:
 IDS 650.1(.2)-655.1(.2) Directed Readings;
 IDS 640.1(.2)-645.1(.2) Special Topics in International Development;
 IDS 660.1(.2) Field Research in Development.
 - d. A minimum of one and one-half (1.5) cognate courses chosen in consultation with the Program Coordinator from among an approved list.
 - e. A thesis or practicum that shows analytical/critical skills of research/interpretation and that makes an original contribution to the field of International Development.
11. Students admitted under Categories II and III above will also be required to complete and receive between one-half (0.5) and four and one-half (4.5) additional credits (as stipulated in the letter of acceptance). These courses will be drawn from:
- a. IDS 510.0 Seminar in International Development and IDS 530.1(.2) Contemporary Development Planning.
 - b. Two of:
 IDS 520.1(.2) Research Methodology;
 IDS 540.1(.2)-545.1(.2) Special Topics in International Development.
 - c. One of:
 IDS 560.1(.2) Field Research in Development;
 IDS 550.1(.2)-555.1(.2) Directed Readings.
 - d. Cognate courses chosen from an approved list in consultation with the Program Coordinator.

Courses Approved for the Master's Program

- IDS 510.0 Seminar on International Development
- IDS 520.1(.2) Research Methodology
- IDS 530.1(.2) [630.1(.2)] Contemporary Development Planning
- IDS 540.1(.2)-545.1(.2) Special Topics in International Development
- IDS 547.1(.2) Work and Empowerment of Women in India
- IDS 550.1(.2)-555.1(.2) Directed Readings
- IDS 560.1(.2) Field Research in Development
- IDS 570.1(.2) Environment and Development
- IDS 600.0 Development in a Global Context
- IDS 610.1(.2) Problems in International Development
- IDS 620.1(.2) Research Methodology
- IDS 622.1(.2) Gender and Development: Theory and Method
- IDS 623.1(.2) Gender and Development: Policy Issues
- IDS 640.1(.2)-645.1(.2) Special Topics in International Development
- IDS 650.1(.2)-655.1(.2) Directed Readings
- IDS 660.1(.2) Field Research in Development

Courses Offered by Associated Departments at Saint Mary's University

- ECO 409.1(.2) Econometric Modelling and Forecasting
- ECO 410.1(.2) Issues in Economic Development
- ECO 414.1(.2) International Trade
- ECO 490.1(.2) Seminar in Economics
- ECO 501.1(.2) Economics of Enterprise Environment
- ECO 690.1(.2) Seminar in Economics
- EDU 651.1(.2) Comparative Education I
- EDU 652.1(.2) Comparative Education II
- EDU 653.0 Comparative Education: USA, Middle and Far East
- EDU 654.0 Comparative Education: Europe, USSR, Latin America
- EDU 675.0 Global Issues and Education
- EDU 676.0 Education and Development
- FIN 676.1(.2) International Business Finance and Banking
- HIS 616.1(.2) Africa in the 19th Century, Intrusion and Conquest
- HIS 617.1(.2) Africa in the 20th Century, Colonialism and Independence
- HIS 622.0 South Africa
- HIS 623.0 China Before 1800
- HIS 642.0 China in Revolution: 1840 to the Present
- HIS 675.0 Modern Latin America
- HIS 680.0 Latin America in the 20th Century
- HIS 685.0 Aspects of Global History: One Earth, Many Worlds
- HIS 691.0 East Asia and the West
- HIS 696.1(.2) China and Japan in the 20th Century
- MGT 681.1(.2) International Business Management

MSC 690.1(.2)	Management of Natural Resources
MKT 675.1(.2)	Multinational Marketing
SOC 420.0	Comparative Regional Development
SOC 423.1(.2)	Gender and Development: Policy Issues
SOC 425.0	Corporate Power and the World Economy

Detailed descriptions of the courses delineated above are found in Section 5 of this Calendar.

Master of Arts in Philosophy

Chairperson, Associate Professor	S. Wein
Associate Professors	W. Grennan, P. March
Assistant Professors	R. Ansell, J. Blair, S. Crooks, J. Graham
Lecturer	S. Wake

The University's general requirements for admission for graduate studies and for the Master's degree apply to the Department of Philosophy. The particular requirements of the Department are as follows. They are currently under review and are subject to revision.

1. Admission Requirements

a. Only students who have earned an honors degree in Philosophy, or the equivalent, will be admitted to the one-year program. Other students must first obtain the equivalent of an honors degree in Philosophy.

b. Applicants must submit academic transcripts, a statement specifying areas of preparation and areas of interest, and three letters of reference.

c. The Departmental Graduate Studies Committee will review applicants' files and make recommendations to the Department on admissions. The Department will make final decisions on admissions.

2. Degree Requirements

a. The student will take a total of three 600-level credits (3.0), and in addition will write a thesis (696.0 Master's Thesis). In some cases graduate students will attend undergraduate classes, but in all cases they will follow an independent syllabus agreed on between the Graduate Officer, the course instructor, and the student.

b. As soon as possible after acceptance into the Master of Arts program, the student will submit a thesis proposal to the Departmental Graduate Studies Committee. After satisfying itself that the proposal is academically sound, and that a supervisor and examiners will be available, the Committee will authorize the student to proceed with the writing of the thesis. In consultation with the student and faculty members concerned, and subject to Departmental approval, the Graduate Officer will appoint a thesis supervisor for each graduate student. Normally the thesis will have a length of approximately 20,000 words (eighty pages). The thesis must exhibit an understanding of the issues with which it deals, an ability to construct cogent arguments concerning them, and an ability to make cogent criticisms of positions and arguments.

c. When the thesis is completed, the student will submit it to the Departmental Graduate Studies Committee, which will, subject to Departmental approval, appoint three examiners, one of whom will normally be the thesis supervisor. Copies of the thesis will be made available in advance to the examiners. The Graduate Officer will set a time for the thesis defense, to which members of the academic community will be invited. Following the thesis defense, the examiners will report their assessment to the Graduate Officer and the student in writing.

The following constitute the offerings in this graduate program. Detailed course descriptions are found in Section 5 of this Calendar.

602.1(.2)	Philosophy of Language: Meaning
603.1(.2)	Philosophy of Language: Speech Acts
606.0	Theory of Knowledge
610.0	Political Philosophy
626.0	Philosophy of Mind
650.0	Phenomenology
652.1(.2)	Philosophy of Science
654.1(.2)	Philosophy of History
665.0	Analytic Philosophy
667.1(.2)	Augustine on Philosophy
668.1(.2)	Aquinas on Philosophy

670.1(.2)	Medical Ethics
671.1(.2)	Meta-ethics
672.1(.2)	Foundation of Ethics
679.0	Senior Seminar
680.0	Philosophical Issues in Feminism
685.1(.2)-689.1(.2); 690.0-695.0	Reading Courses in Philosophy
696.0	Master's Thesis

Master of Arts in Sociology and Criminology

Chairperson, Professor	J. McMullan
Professors	L. Christiansen-Ruffman, P. Connelly, R. Cosper, S. Halebsky, M. Overington, H. Veltmeyer
Associate Professors	G. Barrett, I. Okraku, D. Perrier
Assistant Professors	S. Bell, R. Hadden, G. Kellough, E. Tastsoglou
Coordinator of Criminology Certificate Program	S. Bell

Note: This program is subject to the approval of the Maritime Provinces Higher Education Commission.

The general requirements for the Master's degree delineated above apply to the graduate program in Sociology and Criminology. The specific requirements and conditions of the Master's degree in Sociology and Criminology are as follows.

1. Admission Requirements

a. Students who have earned an honors Bachelor of Arts degree with a major concentration in Sociology or Criminology may be admitted into the one-year graduate program.

b. Students who have earned a Bachelor of Arts degree in Sociology, Criminology, or other related disciplines may be admitted to a two-year graduate program, the first year of which would be equivalent to the honors program.

c. Applicants must submit academic transcripts; a statement that specifies areas of preparation and interest; and three letters of recommendation from individuals who can attest to their academic professional competence and/or interest in pursuing graduate training.

d. A minimum score of 650 on the TOEFL or of 110 on the University of Michigan English Proficiency Test is required of all international applicants whose native language is not English and whose undergraduate education was conducted in a language other than English.

e. The Graduate Committee of the Sociology and Criminology Department will review the files of all applicants and make final decisions about admission into the program.

2. Degree Requirements

a. In addition to the requirements of the honors program, all students must receive credit for the following:

(i) SOC 601.0 Social Justice and Social Change;

(ii) either SOC 613.1(.2) Advanced Criminological Theory or SOC 623.1(.2) Theories of Social Development;

(iii) SOC 602.1(.2) or SOC 603.1(.2) or SOC 604.1(.2)

Research Methods;

(iv) one credit (1.0) at the 600 level relevant to the student's area of concentration.

(v) SOC 630.0: Students are expected to produce a thesis which shows both originality and the analytical/critical skills of research and interpretation. The thesis must be accepted by the students' Thesis Committee by May 1 if the degree is to be completed by the deadline stipulated for graduation that same year. The Thesis Committee will consist of a thesis supervisor and two members. All students must defend their thesis before an Examining Committee consisting of the Thesis Committee, the Graduate Studies Coordinator, and one outside reader chosen by the Thesis Committee in consultation with the Graduate Studies Coordinator and the student. The defense will be public.

A minimum quality point average of B (or equivalent) is required for graduation.

All degree requirements must be completed within five years of registration in the program.

The following constitute the offerings in this graduate program. Detailed course descriptions are found in Section 5 of this yearbook.

- 610.0 Social Justice and Social Change
- 611.1(2)-609.1(2) Directed Readings
- 611.1(2)-612.1(2) Advanced Topics in Criminology
- 611.2) Criminological Theory
- 620.0 621.1(2)-622.1(2) Advanced Topics in Social Development
- 621.2) Theories of Social Development
- 630.0 Thesis Research

Faculty of Commerce – Graduate Programs

The Faculty of Commerce offers two programs of study leading to a degree of Business Administration.

Executive Master of Business Administration (EMB)

Director Prof. David H. Bateman

The Program

The Executive MBA is a four-semester program designed to meet the unique needs of both mid-career managers who have demonstrated the potential to reach senior management positions and senior managers who want to increase significantly their personal and organizational effectiveness. The Executive MBA is structured as an intensive program that will enhance participants' ability to think across functional lines and understand better the "whole enterprise" in a global competitive situation.

Governance of Program

The program administration is under the direction of the EMBA Director, reporting to the Dean of Commerce.

All program policies are formulated and guided by an EMBA Council.

The Council consists of one member representing each of the departments in Commerce; the EMBA Director; a representative from the MBA Graduate Council; and representatives from the alumni, the EMBA students, and industry.

Decisions of course scheduling and required withdrawal of students, the EMBA Council will make the decisions and communicate these to appropriate administrative bodies through the EMBA Director. In the matter of recruiting, faculty members will be recommended to the Dean by the EMBA Council.

Each year the EMBA Council will constitute a subcommittee called the "Admissions Committee". This Committee shall have two EMBA Council members, both of whom are instructors in the program at Saint Mary's and the EMBA Director. The Dean of Commerce may elect to sit on this Admissions Committee.

An EMBA participant who fails in a course will be required to withdraw from the program. No credit will be recognized for the other courses which the student may have successfully completed.

An EMBA student who is required to withdraw may, after the lapse of one calendar year, seek re-admission. The application for re-admission shall be evaluated by the EMBA Council (and not the Admissions Committee alone). The Council may deny re-admission to admit subject to stipulated conditions. A student may withdraw voluntarily and seek admission in later years. After a lapse of three years, credit for previous EMBA courses will not be recognized.

Qualifications for Admission

The EMBA Admissions Committee will consider an applicant's prior academic record, scores on the GMAT, military or work experience, extracurricular activities, letters of recommendation, and the written application. While each of these general criteria is important, the applicant's entire profile will be evaluated, where significant strengths in one area may help compensate for weaknesses in another.

Test scores and academic records will be evaluated as evidence of academic quality; however, the Admissions Committee will also look for personal qualities, such as leadership and motivation, which are important for success as a manager.

A written application, including a statement of the objectives of the student, and interview will be the basis of the Admissions Committee's decision. Applications will not be evaluated until the application is complete, including test scores. It will be the responsibility of the applicant to ensure that the application is complete.

In general, an applicant for admission to the Executive MBA Program will have:

1. substantial experience at the senior management level;
2. sponsorship by an employer who agrees to pay all or part of the fees and guarantees the involvement of the employer to facilitate successful completion of the program; or the ability to pay the fees independently;
3. a bachelor's degree with high standing or equivalent qualification (in certain cases, consideration will be given to students who do not hold a bachelor's degree);
4. taken the Graduate Management Admissions Test (GMAT), or its equivalent, such as the GRE;
5. two letters of reference from work-related or academic sources.

Upon acceptance, each student will be provided, as appropriate, with orientation materials designed to upgrade skills in Quantitative Methods, Computer Literacy and/or Appreciation of Financial Statements. Where necessary, courses will be run on campus prior to the commencement of classes, so that students are fully conversant in a computerized-learning environment and possess the quantitative skills expected.

Program Highlights

– A four-semester course of study leading to the degree of Master of Business Administration.

– Classes will meet on alternating weeks on Fridays and Saturdays during the academic year.

– Managerial experiences and practical backgrounds of participants will be utilized.

– A broad management view of various business and organizational problems will be provided.

– An understanding of economic, social, political, and environmental forces that affect the organization and influence managerial decisions will be developed.

– An exchange of information and insights will be encouraged among participants from diverse industries, organizations, functions and responsibilities.

– The sponsoring organization and its participating manager will be able to meet common educational goals without major disruptions of job assignments and home life.

Program Structure

The EMBA Program consists of 16 modules of 26 hours each, over a four-semester period, or four modules totalling 104 hours in each semester. Classes are held on alternating weeks on Fridays from 9:00 a.m. to 10:00 p.m. and Saturdays from 8:30 a.m. to 6:00 p.m. Eight subjects (see curriculum below) are covered in the first year.

Year II of the program will follow the class schedule followed in Year I.

Curriculum

First Year: Required Courses

- EMB 511.1(2) Managerial and Financial Accounting
- EMB 512.1(2) Organizational Behavior and Theory
- EMB 513.1(2) Marketing Management
- EMB 514.1(2) Business Research Methods
- EMB 521.1(2) Corporate Finance
- EMB 522.1(2) Managerial Economics
- EMB 523.1(2) Operations Management
- EMB 524.1(2) Human Resource Management

Second Year: Required Courses

- EMB 631.1(2) Management Information Systems
- EMB 632.1(2) International Capital Markets

EMB 633.1(.2)	Policy I – Business Strategy
EMB 634.1(.2)	Business Research Project I
EMB 641.1(.2)	International Business
EMB 642.1(.2)	Policy II – Public Policy in Business
EMB 646.1(.2)	Business Research Project II
EMB 690.1(.2)	Seminar in Business Studies
EMB 691.1(.2)	Directed Study

Elective Courses

EMB 643.1(.2)	Industrial Relations
EMB 644.1(.2)	Financial Innovations
EMB 645.1(.2)	International Marketing

Summary: 15 required courses; 1 elective.

Evaluation

In order to qualify for a Master's degree, a student shall obtain a minimum quality point average of at least 3.00. Failure of a course requires the withdrawal from the program.

Letter grades and quality points for graduate courses will be assigned as follows:

A+	=	4.00	=	Excellent
A	=	4.00	=	Excellent
A-	=	3.67	=	Very Good
B+	=	3.33	=	Good
B	=	3.00	=	Satisfactory
B-	=	2.67	=	Below graduate standard
C	=	2.00	=	Marginal Pass
F	=	0.00	=	Failure
IP	=	—	=	In progress (Reserved exclusively for the EMBA's Research Project or Directed Study.)

Master of Business Administration (MBA)

Director Dr. Russel Summers

Program Objectives

The primary objective of the Master of Business Administration Program is to provide an intellectual and social environment in which the students can discover how to develop potential for effective management. Both business and government are increasingly demanding that professional administrators possess specialist competence as a prerequisite for middle management employment, plus generalist competence from those who aspire to more senior management positions. The program at Saint Mary's University is designed to satisfy both these demands.

Since many MBA students can realistically expect to hold middle line or staff management positions before moving on to more senior levels later in their careers, the program is designed to satisfy short-term and long-term educational needs by providing:

- generalist concepts in anticipation of potential to succeed to more general and senior management positions later; and
- specialist concepts and techniques applicable to a particular line or staff area.

Qualifications for Admission

Admission to the program is open to students with a bachelor's degree from a recognized university, whose scholarly records indicate that they are capable of studying management and administration at the graduate level, and who obtain a satisfactory score in the GMAT. A small number of places are reserved for mature students lacking an undergraduate degree but having significant work experience, good grades in a number of post-secondary university credit courses, and higher-than-average GMAT scores.

Application Procedures

Applications for admission to the MBA Program should be made as early as possible. The normal deadline for the receipt of all application material is May 31, for entry the following September, except for overseas students whose applications and supporting documents must be received by April 1.

Application material and program information may be obtained by contacting the:

Director of Admissions
Saint Mary's University
Halifax, Nova Scotia
B3H 3C3
Tel: 902-420-5415
Fax: 902-496-8100

To be considered for admission, students will be required, where applicable, to submit the following to the Director of Admissions:

- completed application forms;
- an official transcript for all work previously undertaken;
- two letters of recommendation;
- GMAT results (Note: 0958 is the appropriate code for the MBA Program at Saint Mary's University);
- for overseas students whose native language is not English, a test in English (TOEFL);
- a non-returnable application fee of \$30.00.

Note: Inquiries regarding the status of an application for admission are to be addressed to the Director of Admissions.

Financial Aid

In addition to Canada Student and other loans, financial aid is available through University scholarships and assistantships. (See Section 6 for additional information.)

Registration Deposit

A non-refundable registration deposit of \$100.00 for full-time students and \$25.00 for part-time students is applicable to the MBA Program.

Part-Time Basis

The program is available on a part-time basis for students who wish to complete it in part, or whole, while remaining in full-time employment. At least two courses from each year of the program will be offered in evening classes each semester. Subject to satisfactory enrollment, courses will also be offered during the summer session. Consequently, students may complete the whole program on a part-time basis within four years.

Teaching Methodology

The program is neither discipline nor case oriented, but courses embrace combinations of lectures, case discussions, seminars, and assignments according to the requirements of the individual subject. Since the Faculty has extensive business as well as academic experience, attention is focused on both the practical and the academic aspects of the materials covered during the program.

The Faculty believes that management education is essentially a process of personal development which must be student-centred. Therefore, to facilitate individual academic and management development throughout the program, a personal advisor is assigned to assist students to discover and develop their management potential.

Program Structure**Year I**

Both generalist and specialist management education ideally require a blend of knowledge in the basic disciplines (the social and behavioral sciences and mathematics), and their applications to the functional areas of management. Therefore the first year of the program necessarily consists of foundation courses in both the basic disciplines and each of the functional areas of management. It also shows the students how the concepts and techniques developed by the basic disciplines are used to enhance managerial effectiveness.

Basic Disciplines

- Economics of the Enterprise
- Economics of the Enterprise Environment
- Management Science
- Computers in Business
- Organizational Behavior

Functional Areas

- Accounting – a. Financial
b. Managerial
- Managerial Finance
- Marketing Management

Year II

The second year of the program is designed such that the students maintain a broad managerial perspective, but can concentrate in a more specialized area. Students are required to take MGT 689 (Strategic Management) and one of the Research Seminars (ACC 698, ECO 698, FIN 698, MGT 698, MKT 698, or MSC 698) and a Research Project (699 course) in the area corresponding to the 698 course as part of their second year program. In addition, students must take at least one second year course in Accounting, Finance, Management, Management Science, and Marketing; the 698 course may be used to satisfy this requirement for a 600-level elective in the corresponding area. Beyond this, students may have up to three second year courses (1.5 credits) which are designated as free electives. Students may desire to maintain a broad perspective by taking these courses in four different areas or they may take these courses in one area in order to gain a more specialized knowledge.

As the overall intention of this program is to ensure that students receive a broad business overview which provides an essential element of successful management. The program, however, is flexible enough to allow for concentrated knowledge through the judicious selection of free electives.

Program Summary

The overall course requirements for the MBA Program are summarized below:

First Year Required Courses

ECO 500.1(2)	Economics of the Enterprise
ECO 501.1(2)	Economics of the Enterprise Environment
MSC 506.1(2)	Introductory Decision Analysis I
MSC 507.1(2)	Introductory Decision Analysis II
MSC 521.1(2)	Computers in Business
ACC 540.1(2)	Financial Accounting
ACC 548.1(2)	Managerial Accounting
FIN 561.1(2)	Business Finance
MKT 571.1(2)	Marketing Management: An Overview
MGT 585.1(2)	Organizational Behavior I
MGT 588.1(2)	Organizational Behavior II

Second Year Required Courses

MGT 689.1(2)	Strategic Management
— 698.1(2)	Research Seminar
— 699.1(2)	Research Project – see note below
Accounting elective ACC 6XX (0.5)	
Finance elective FIN 6XX (0.5)	
Management elective MGT 6XX (0.5)	
Marketing elective MKT 6XX (0.5)	
Management Science elective MSC 6XX (0.5)	
4-level free electives (1.5)	

Each student is required to complete a project, normally on an company basis, involving the practical application of the concepts and techniques learned in a specialist area, under the direct supervision of a faculty member in that area. The Research Project and the Research Seminar must be in the same discipline.

Second Year Elective Courses (Listed by Department)

Accounting	
ACC 626.1(2)	Management Information Systems
ACC 641.1(2)	Financial Reporting: Problems and Issues
ACC 648.1(2)	Management Control Systems
ACC 650.1(2)	Managerial Decision Analysis and Information
ACC 652.1(2)	Integrative Managerial Accounting
ACC 654.1(2)	Advanced Financial Accounting Theory
ACC 656.1(2)	Integrative Financial Accounting
ACC 657.1(2)	International Accounting
ACC 658.1(2)	Computer Based Auditing
ACC 660.1(2)	Integrative Public Auditing
ACC 662.1(2)	Integrative Internal Auditing
ACC 664.1(2)	Advanced Taxation Legislation – Corporate and Sales
ACC 666.1(2)	Taxation and Financial Planning
ACC 668.1(2)	Advanced MIS
ACC 690.1(2)	Seminar in Accounting
ACC 692.1(2)	Directed Study
ACC 698.1(2)	Research Seminar
ACC 699.1(2)	Research Project
Economics	
ECO 600.1(2)	Issues in Industrial Economics
ECO 690.1(2)	Seminar in Economics

ECO 692.1(2)	Directed Study
ECO 698.1(2)	Research Seminar
ECO 699.1(2)	Research Project

Finance

FIN 663.1(2)	Financial Management
FIN 664.1(2)	Corporate Financing
FIN 666.1(2)	Capital Markets
FIN 667.1(2)	Options, Futures, and Swap Markets
FIN 676.1(2)	International Business Finance and Banking
FIN 690.1(2)	Seminar in Finance
FIN 692.1(2)	Directed Study
FIN 698.1(2)	Research Seminar
FIN 699.1(2)	Research Project

Management

MGT 681.1(2)	International Business Management
MGT 682.1(2)	Compensation Theory and Administration
MGT 683.1(2)	Management of Interpersonal Relations
MGT 684.1(2)	Management of Organizational Design and Development
MGT 685.1(2)	Strategic Human Resource Management
MGT 686.1(2)	Labor-Management Relations
MGT 687.1(2)	Small Business Opportunities
MGT 688.1(2)	Social Issues in Business
MGT 690.1(2)	Seminar in Management
MGT 692.1(2)	Directed Study
MGT 695.1(2)	Small Business Performance Improvement
MGT 698.1(2)	Research Seminar
MGT 699.1(2)	Research Project

Management Science

MSC 603.1(2)	Statistical Applications in Management Science I
MSC 604.1(2)	Statistical Applications in Management Science II
MSC 615.1(2)	Operations Management
MSC 636.1(2)	Computer Systems
MSC 690.1(2)	Seminar in Management Science
MSC 692.1(2)	Directed Study
MSC 698.1(2)	Research Seminar
MSC 699.1(2)	Research Project

Marketing

MKT 670.1(2)	Ethical and Social Analysis in Marketing Decisions
MKT 672.1(2)	Marketing Communications: Planning and Strategy
MKT 673.1(2)	Marketing Distribution: Planning and Strategy
MKT 675.1(2)	Multinational Marketing
MKT 676.1(2)	Consumer Behavior: Decision-Making Applications
MKT 677.1(2)	Industrial Marketing Management
MKT 678.1(2)	Marketing Research
MKT 679.1(2)	Marketing Policy
MKT 690.1(2)	Seminar in Marketing
MKT 692.1(2)	Directed Study
MKT 698.1(2)	Research Seminar
MKT 699.1(2)	Research Project

Alternative Program

It is recognized that some students, particularly some of those enrolled in the program on a part-time basis, may already have substantial management experience and be aspiring towards general management positions soon after graduation. Such students could be offered the opportunity of following a General Management Program specifically suited to their needs. In their second year of studies, they would be required to complete the Management Research Project and Policy and Strategy Formulation course plus the equivalent of four and one-half (4.5) credits from the remainder of the second year program.

Advanced Standing

If students believe that through previous course work or practical experience they possess the knowledge embodied in any of the first year courses, they should contact the Director of the MBA Program. The Director may grant advanced standing on the basis of previous course work or waiver examinations, which are written in September. Students will normally take these examinations prior to the commencement of their degree program. The successful completion of waiver examinations will result in the students receiving credits for those courses.

MBA Professional Accounting Concentration

Co-operative Education Program

Program Objectives

Accounting major undergraduates typically enter one of three professional programs. The MBA concentration will provide accounting students with the opportunity to acquire an up-to-date understanding of this field of study and the technology surrounding it together with a cross section of modern management practices so critical to a long term career. Expectations are that students should write their professional certification examinations after one year of further professional experience and an examination preparation course tailored to the specific professional association of interest. The two Co-op terms indicated as part of the program should permit graduates to receive commensurate professional exemption from their association's service requirements.

Negotiations are ongoing with the Institute of Chartered Accountants, the Society of Management Accountants and the Certified General Accountants Association to establish the nature of their service requirements. In addition, accreditation of the courses in the program is a matter that is under review by these groups.

Qualifications for Admission

Admission to this program will require satisfaction of normal MBA admission standards and satisfaction of the credit waiver requirements for three credits (3.0) as specified below: ACC 540 and 548; ECO 500 and 501; FIN 561 and one-half credit (0.5) from any of MKT 571, MGT 585, MGT 586, MSC 506, MSC 507, and MSC 521. Notification of credits will be given with the notice of admission. Make-up courses will be necessary where credit requirements or prerequisite requirements to 600-level courses cannot be obtained on entrance.

Full-time Basis

The MBA Accounting Concentration Program requires full-time attendance for the five terms.

Program Structure

First term

ACC 650.1	Managerial Decision Analysis and Information	0.5 credit
ACC 654.1	Advanced Financial Accounting Theory	0.5 credit
ACC 668.1	Advanced Management Information Systems	0.5 credit
ACC 698.1	Accounting Research Seminar	0.5 credit
Elective:	Subject to Departmental approval	0.5 credit
		Total: 2.5 credits

Second term

Co-op term:	January to April 30	4 months
ACC 699.2	Research Project	0.5 credit
		Total: 0.5 credits

Third term

Co-op term:	May 15 to August 15	3 months
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Fourth term

Term:	September to December	
MGT 686.1	Labour/Management Relations	0.5 credit
MGT 689.1	Strategic Management	0.5 credit
ACC 658.1	Computer Based Auditing	0.5 credit
FIN 666.1	Capital Markets	0.5 credit
ACC 664.1	Advanced Taxation Legislation	0.5 credit
		Total: 2.5 credits

Fifth term

Term:	January to April	
ACC 652.2	Integrative Managerial Accounting	0.5 credit
ACC 656.2	Integrative Financial Accounting	0.5 credit
ACC 660.2	Integrative Public Auditing	
or		
ACC 662.2	Integrative Internal Auditing	0.5 credit
ACC 666.2	Taxation and Financial Planning	0.5 credit
MKT 679.2	Marketing Policy	0.5 credit
		Total: 2.5 credits
Total		8.0 credits
Credits on entrance		3.0 credits
Total credits for program		11.0 credits

Policies and Regulations Governing Co-operative Education Work Terms

a. The University will make every effort to locate work term positions for Co-operative Education students in academically related areas of employment, but cannot guarantee placements. Employment settings may also be identified by Co-operative Education students, but require the approval of the Departmental Co-operative Education Coordinator.

b. The satisfactory fulfilment of Co-operative Education work term requires:

(i) the completion of two terms of work experience in academically related, paid employment situations totalling 30 weeks. Under certain circumstances, and with the approval of the Department, students may be permitted to satisfy their work requirements in an unpaid position.

(ii) a satisfactory employer evaluation for each Co-operative Education work term;

(iii) the satisfactory completion of a written report following each work term detailing the student's work experience in accordance with Departmental standards and expectations.

c. Students may be required to withdraw from a Co-operative Education program if:

(i) they are dismissed from, quit, or fail to accept an appropriate and approved Co-operative work term position;

(ii) they fail to submit or successfully complete a work term report;

(iii) in the judgement of their Department, they are no longer suited for the particular requirements of a Co-operative Education program.

d. Students who voluntarily withdraw from or who are required to withdraw from a Co-operative Education program may apply to continue in the MBA Program.

e. Co-operative Education students will be expected to attend all special seminars or colloquia developed by the Department which deal with employment orientation and the application of formal academic study to work experiences.

Fees for Co-operative Education

a. Students pay for their academic courses as they take them.

b. Students are not expected to pay fees for work terms.

Note: Students entering this program of study and receiving credit will not automatically be able to transfer to the regular MBA Program without prior approvals.

Detailed course descriptions are found in Section 5 of this Calendar.

MBA International Development Management Concentration

Program Objectives

Canada's international trade partners number nearly 200 countries. In particular, Newly Industrialized Countries (NICs) such as Singapore, South Korea, Brazil and Argentina play a very critical role. In the future, other developing countries (e.g., India, Nigeria and Mexico) are expected to play an important role in bi-lateral trade with Canada. The cultures of these societies are vastly different from those of Canada's traditional trade partners. Further exposure to the business and social practices in these countries is imperative if Canadian managers are to successfully compete with other countries such as Japan, Germany or the U.S.

The concentration does not seek to make the manager a global management expert. Nor will this program make the person an expert on Asian, South American or African management systems; rather, it will sensitize the students to these cultures and unique demands posed on managers in developmental settings.

Program Structure

First Year

ECO 500.1(.2)	Economics of the Enterprise
ECO 501.1(.2)	Economics of the Enterprise Environment
MSC 506.1(.2)	Introductory Decision Analysis I
MSC 507.1(.2)	Introductory Decision Analysis II

EC 521.1(2)	Computers in Business
EC 540.1(2)	Financial Accounting
EC 548.1(2)	Managerial Accounting
EC 581.1(2)	Business Finance
ET 571.1(2)	Marketing Management: An Overview
ET 585.1(2)	Organizational Behavior I
ET 586.1(2)	Organizational Behavior II

Summer Term

For as practical, efforts will be made to place the students in a foreign organization (profit or non-profit agency), the international division of a Canadian multinational organization, or an international business agency. Students will be encouraged to analyze and discuss their experiences during the summer work term. They will be expected to write a paper which will form the basis of a future graduate study course or research project.

Second Year

SE 510.0	Seminar in International Development
ST 689.1(2)	Strategic Management
— 698.1(2)	Research Seminar
— 699.1(2)	Research Project

At least one credit (1.0) from the following:

ACC 657.1(2)	International Accounting
FIN 676.1(2)	International Business Finance and Banking
MGT 681.1(2)	International Business Management
MKT 675.1(2)	Multinational Marketing
— 690.1(2)	Seminar in functional area focusing on International Development
— 692.1(2)	Directed study in functional area focusing on International Development

At least one credit (1.0) from the following:

EDU 676.1(2)	Education and Development
IDS 530.1(2)	Contemporary Development Planning
IDS 540.1(2)	Special Topics in International Development
IDS 657.1(2)	Work and Empowerment of Women in India
IDS 800.0	Development in a Global Context
IDS 610.1(2)	Problems in International Development
POL 553.0	International Studies Seminar
SOC 608.1(2)	Directed Readings in Sociology with an International Development focus
WMS 622.1(2)	Theory and Methods in Women's Studies

At least one credit (1.0) from the above list, from among the 600-level MBA programs, or from appropriate offerings at other graduate institutions.

Admission Criteria

Students must apply for admission to the concentration early in the first year of the MBA Program. Preference will be given to students proficient in English and a second language, students with prior work experience in a developing country, or students seeking a career in International Development. Admission decisions will be based upon student academic ability, and relevant experience.

Faculty of Science – Graduate Programs

The Faculty of Science offers two graduate programs in the areas of Astronomy and Applied Psychology.

Master of Science in Astronomy

Chairperson, Professor

Professors

Laboratory Director, Associate Professor

Graduate Coordinator, Assistant Professor

Graduate Coordinator, Assistant Professor

Assistant Professor

Adjunct Professor

D. Turner

W. Lonc

G. Mitchell

G. Welch

D. Guenther

M. Butler

D. Clarke

D. Forbes

Astronomy has been closely linked with Saint Mary's University for many years. In 1974 Saint Mary's became the first and only university in Atlantic Canada to offer a program of instruction in astronomy, a distinction it still holds. Two years earlier a 40-cm reflecting telescope had been installed in an observatory atop the newly-completed Loyola high-rise residence complex on campus, and was opened for a regular weekly program of observing tours of the heavens. Named in honor of Michael W. Burke-Gaffney, S.J., the

very enthusiastic and respected astronomer, engineer and educator who had popularized astronomy at Saint Mary's over the previous three decades, the Burke-Gaffney Observatory has played an important role in widening the public appreciation of the universe and our place in it. During the academic year the Observatory is also used heavily by undergraduate and graduate students, supporting projects which range from sketching surface features of the moon and planets to photographing stellar spectra and solar prominences.

Formal introductory Astronomy courses have been offered at Saint Mary's since 1957. Prior to 1971 these were taught by Father Burke-Gaffney. Between 1971 and 1974 three astronomers joined the Faculty in response to the University's decision to build on the tradition established by him. With the founding of the Astronomy Department in 1974, Saint Mary's launched its first graduate program in the sciences, a two-year program leading to the Master of Science degree. Increasing student interest over the years stimulated a gradual expansion of undergraduate offerings, culminating in 1989 with the Astrophysics major program offered in cooperation with the Department of Physics. In 1993 the Astronomy and Physics Departments at Saint Mary's united into one Department, and a new program of study was created to provide students with a strong undergraduate experience in astronomy and physics and a more comprehensive graduate education in astronomy and astrophysics.

Research and Facilities

The complement of the Department includes a balanced mix of observational/experimental and theoretical interests. Observational and experimental research includes interstellar chemistry and gas outflows from young stellar objects, the study of open clusters and associations of various ages, the evolution of massive stars and pulsating variables, the cluster distance scale, interstellar reddening in the galactic disk, the origin and structure of early-type galaxies, and radio interferometric observations of extragalactic radio sources and their environs. Theoretical research includes particle physics and the solar neutrino problem, the modelling of stellar pulsation modes, magnetohydrodynamical modelling of the interstellar medium, the study of supernova remnants and extragalactic radio sources, and the propagation of cosmic rays and their associated emissions. Observational research involves photoelectric, photographic, and CCD imaging and spectroscopy obtained from various sites, the Sudbury Neutrino Observatory, and the Very Large Array and Very Long Baseline Array radio interferometers in the U.S. Theoretical research makes use of local computing facilities as well as Cray-class supercomputers accessed remotely from local workstations. Graduate student projects are normally initiated on the basis of student research interests and the identification of an appropriate faculty supervisor.

The Burke-Gaffney Observatory, situated on the roof of the 23-story Loyola academic/residence building on campus, houses a modern 40-cm reflecting telescope equipped for several different types of astronomical observing, namely photometry, spectroscopy, and photographic and CCD direct imaging. The 40-cm reflector is the largest professional telescope in Atlantic Canada and is heavily used for public tours, undergraduate and graduate training in observational astronomy, and less frequently for astronomical research. Faculty members and graduate students normally make use of other observatory sites around the world to obtain the scientific data used for their research, with the facilities at Saint Mary's being used to analyze the observational material gathered in this manner.

The Patrick Power Library on campus and the city-based NOVANET system give students and faculty access to extensive library collections of books and journals in astronomy and astrophysics, and these are supplemented by faculty subscriptions to additional key journals and preprints. Computer facilities are quite extensive. Saint Mary's has ready access to other academic sites world-wide via Internet on the University's newly acquired DEC-alpha machines, which can be accessed by terminals and workstations in faculty and student offices. Within the Department itself are several Sun SPARC workstations, a NEXT workstation, several Macintosh and DOS-based computers, an LSI 11/23 system, laser printers, a colour ink-jet printer, 5 Gbytes of disk space, CD ROM readers, a DAT tape drive, and several other peripherals. The Department also has a Cuffey Iris Astrophotometer. Several powerful and widely-used data reduction software packages are available, including DAOPHOT, IRAF, VISTA, SPECX, and AIPS. Also to be found in the Department are a Joyce-Loebl microdensitometer, a Gaertner measuring engine, various low-power microscopes for plate viewing and spectral classification, and complete northern and southern hemisphere sky surveys.

Admission Requirements

Full-Time Students

Graduate students in Astronomy come from diverse university backgrounds. Some have previously had no exposure to Astronomy at the undergraduate level, although such exposure is clearly desirable. Admission to the two-year Master of Science program at Saint Mary's normally requires an honors degree in astronomy, mathematics, physics, or the equivalent, with a minimum graduating average of B. Students who have not completed such a program, or who have weak backgrounds in mathematics or physics, may be admitted into a qualifying year in which they take additional courses in these areas prior to attempting graduate courses in astronomy. Prospective students who are in doubt about their qualifications should write to the Chairperson of the Department, enclosing an up-to-date transcript with their inquiry.

Part-Time Students

Students can also complete the program on a part-time basis. The qualifications for admission in this case are usually less stringent than for full-time students, although the general requirements normally apply. Prospective applicants for part-time studies are encouraged to discuss their qualifications with the Chairperson of the Department before completing their application.

Degree Requirements

The Master of Science program is normally of two years duration, and involves course work, seminars, an oral comprehensive examination, and an original thesis on an astronomical topic. Course work and seminars take up much of the fall and winter semesters, while thesis research and writing is done during the summers. The University's general requirements for graduate studies apply to this program. Students accepted into the program must therefore complete courses amounting to at least four credits (4.0), achieving an overall average grade of at least B (qpa = 3.00) on courses taken for credit, and also prepare and defend a satisfactory thesis on an astronomical topic (AST 610.0). The courses selected for this program are normally chosen from the Astronomy graduate half-credit courses listed below, from upper-year or graduate courses in Physics, Mathematics, or Chemistry (where recommended by the student's supervisor), or from the two Astronomy upper-year half-credit courses in Data Analysis in Astronomy and Solar System Astronomy (AST 435 & 445), which may be taken for graduate credit. In all cases, the student's program must be approved by the Department. Students must also pass an oral examination in which they are expected to demonstrate comprehensive knowledge of basic areas in Astronomy. For full-time students, this examination is normally taken at the end of the first year of study.

Full-time students are normally accepted into the program with provisions for support stipends from various sources, including graduate scholarships, undergraduate laboratory demonstratorships, telescope demonstratorships, and faculty research grants. Income from such sources is usually sufficient to cover living expenses and graduate fees. Part-time students are admitted without provisions for support, and their programs of study normally require a longer period for completion.

Graduate Scholarships for Students in Astronomy

Qualified students are eligible for a variety of graduate awards, including NSERC postgraduate scholarships and Saint Mary's University graduate scholarships. Certain named graduate awards are restricted to full-time students in the Astronomy Master of Science program. These include the **Father Burke-Gaffney Memorial Scholarship**, which was established by the Saint Mary's University Alumni Association in memory of Father Michael Walter Burke-Gaffney, S.J., one of the original group of Jesuits who came to the University in 1940, and the **John Despard deBlois Scholarship**, which was established by Marcia Watts deBlois in memory of her late husband, a former professional photographer employed by the National Research Council of Canada who had a long-time interest in Astronomy. Graduate students in Astronomy are also eligible for the **Reuben and Helen Hornstein Bursary**, which was established by Mr. and Mrs. Reuben Hornstein in 1982. Reuben Hornstein, a former meteorologist for a local television station, is an honorary degree recipient of Saint Mary's University.

Graduate Courses

The following constitute the offerings in this graduate program. Detailed descriptions are found in Section 5 of this Calendar.

AST 435.1(2)	Data Analysis in Astronomy
AST 445.1(2)	Solar System Astronomy
AST 602.1(2)	Galactic Astronomy
AST 604.1(2)	The Interstellar Medium
AST 606.1(2)	Techniques and Instruments in Astronomy I
AST 607.1(2)	Binary and Variable Stars
AST 608.1(2)	Selected Topics in Astronomy and Astrophysics
AST 609.1(2)	Extragalactic Astronomy
AST 610.0	Thesis
AST 611.1(2)	Directed Readings in Current Literature
AST 612.1(2)	Particle Astrophysics
AST 613.1(2)	Graduate Gas Dynamics
AST 614.1(2)	Stellar Astrophysics I
AST 615.1(2)	Stellar Astrophysics II
AST 616.1(2)	Techniques and Instruments in Astronomy II

Master of Science in Applied Psychology

Chairperson, Professor
Professors

D. Bruce
V. Catano, J. Darley, K. Hill,
R. Konopasky, I. Lenzer

Associate Professors
Assistant Professors

G. Preity, P. Street, B. Vulcano
H. Chipuer, S. Desmarais

The Department of Psychology offers a Master of Science in Applied Psychology in two fields: Clinical and Industrial/Organizational Psychology. Students are admitted with either full-time or part-time status. Full-time status students will need at least two years to complete all degree requirements, and must finish these within the years; whereas part-time status students must complete all requirements within five years. Normally, part-time students are concurrently employed in an occupation related to Applied Psychology. Further information can be obtained from the Graduate Program Coordinator.

Clinical Psychology

The Clinical program is designed on the scientist-practitioner model and aims to educate students in the assessment and treatment of a variety of psychological problems ranging from normal developmental crises to severe and chronic forms of distress. Students will acquire theoretical and practical understanding of applied research. Students completing Master of Science degree requirements in this area are eligible to apply for registration as a psychologist in Nova Scotia and may pursue careers in public organizations, independent practice or consulting. They may also continue their graduate education in a Ph.D. program. The Psychology Department at Saint Mary's is a member of the Cooperative Ph.D. program in Clinical Psychology at Dalhousie University and students may take graduate courses in this program with permission of both Departments.

Industrial/Organizational Psychology

The program in Industrial/Organizational Psychology prepares students to examine and understand the behavior of individuals and groups in organized environments. Since Industrial/Organizational psychologists may perform a variety of jobs in industry, business and the public service, students in the program are expected to have a solid understanding of quantitative and research methods, acquired skills which will help them in the training and selection of personnel, the design of jobs, workplaces and habitats, and the development of social skills and work-team structures. Students in this program may also be permitted access to courses and supervisors in the MBA Program at Saint Mary's.

Admission Requirements

Admission to the program requires an honors degree in Psychology or its equivalent [20 half-credits (10.0) in Psychology including an independent research project]. Admission materials are available from the Director of Admissions, Saint Mary's University. A completed application form, official transcript, letters of reference, and Graduate Record Exam scores must be forwarded to the Director of Admissions no later than **March 1st**. Within recent years the minimum quality point average (hereafter qpa) of successful applicants has been 3.25. Consideration will also be given to relevant

work and volunteer experience. First year students who wish to change their admission status (full-time or part-time) after they have received notice of their acceptance must make this request to the department before July 1st. Change in status is not guaranteed and must be approved by the Department.

Program Requirements

Students are required to take the equivalent of four credits (4.0), in addition to completing a supervised 500-hour practicum (PSY 690.0) and preparing a thesis (PSY 695.0). The following first year courses are required for all students: PSY 601.0 (Advanced Psychological Statistics) and PSY 603.1(2) (Advanced Assessment). In addition, students must take at least one of the following: PSY 604.1(2) (Clinical Assessment), PSY 605.1(2) (Assessment of Work Behavior), and PSY 606.1(2) (Neuropsychological Assessment).

Students must achieve an average of at least B (3.00). A review of students' progress will be undertaken by the Department at the end of the first year of study [three credits (3.0)]. Notwithstanding students' quality point averages, the Department reserves the right to recommend to the Dean that students be required to withdraw from the program.

Each student must submit a thesis on a topic chosen in consultation with the Thesis Committee, which shall consist of the student's advisor, another member of the Department, and one person from outside the Department, recommended by the Department on the advice of the advisor. The Thesis Committee is normally formed towards the end of the first year of study for a full-time student, or after completion of three credits (3.0) by a part-time student. Each thesis must be approved by the student's Thesis Committee, after which it must be presented orally to the Department and interested scholars from the community.

Financial Aid

Students are eligible to apply for several types of University awards and graduate assistantships. Application forms for these awards can be obtained from the Director of Financial Aid at Saint Mary's University. The competition for graduate scholarships is adjudicated by the Psychology Department on the basis of GPA, GRE scores, teaching experience, and letters of reference. Graduate assistantships are also provided by the Department as teaching professors in course and lab instruction.

The following constitute the offerings in this graduate program. Detailed descriptions are found in Section 5 of this Calendar.

- 2) Advanced Psychological Statistics and Research Design
- 2) Advanced Assessment
- 2) Clinical Assessment
- 2) Assessment of Work Behavior
- 2) Neuropsychological Assessment
- 2) Applied Multivariate Analysis
- 2) Social Skills and Mental Health
- 2) Topics in Engineering Psychology
- 2) Topics in Industrial Psychology
- 2) Field Research Methods
- 2) Community Psychology
- 2) Counselling and Psychotherapy
- 2) Behavior Therapies
- 2) Topics in Applied Child Psychology
- 2) Special Seminar: Topics
- 2) Geroneuropsychology
- 2) Psychological Disorders
- Practicum and Directed Readings
- Thesis

Faculty of Education – Graduate Programs

The Faculty of Education offers two graduate degree programs, namely, a Master of Arts in Education and a Master of Education.

Professor
Associate Professors
Assistant Professors
Associate Professors

Dr. Terry Piper
J. Haysom, D. Weeren
B. Davis, F. Dockrill,
M. Herrick, M. MacMillan,
D. Piper, R. Sargent
B. Hanrahan, U. Kelly,
G. Perry
R. Courchene, E. Gatbonton

Part-Time Professors

F. Blacklock, J. Boudreau, G. Clarke,
A. Dorrington, C. Farwell, D. Ferns,
R. French, W. Gorman, G. Gorveatt,
P. Griesbauer, D. Kaufman, A. Kilcher,
A. Lowe, A. MacCuspie, L. MacLeod,
C. Mullalley, P. Murray, S. Myers,
L. Naud, J. Norris, M. Sargent,
B. Savron, E. Sharpe, A. Smith,
J. Stone, T. Sullivan, M. VanderPlaat,
G. Watson, G. Young

General Information and Requirements

The Faculty of Education offers Master's degrees in two areas of specialization, "Educational Administration" and "Curriculum and Instruction". Suggested programs for these areas of specialization are included in the Faculty of Education Graduate Handbook which is available from the Dean's Office on request.

General Master's degree requirements, which have been set by the University, apply to those seeking admittance to the programs and to those enrolled. For those requirements see above in this section of the Calendar. The particular requirements of the Faculty are as follows:

Students are encouraged to have completed at least one year of successful teaching before embarking on a Master's degree. Bachelor of Education or its equivalent with a minimum of B standing is essential.

Students who have not met requirements for admission to the Master's program may, on recommendation of the Dean and the Committee on Graduate Studies in Education, be permitted to enroll in one or two qualifying or make-up course(s). The qualifying or make-up course(s) will not be credited towards the Master's degree.

The Faculty of Education at Saint Mary's University offers two degree programs, the Master of Arts in Education (M.A.) and the Master of Education (M.Ed.)

The Master of Arts in Education (M.A.)

This degree places emphasis on the development of students' ability to conduct research in the field of Education. Students taking this degree may wish to continue their graduate studies later at the doctoral level.

This program of study must provide a specific focus for the study of educational theory and practice. A program will consist of a two-credit (2.0) thesis (EDU 601.0/602.0) and a minimum of three credits (3.0) obtained through graduate course offerings. It should be noted that because a thesis is required, EDU 611.0 (Research Skills for Practicing Educators) is generally required to be taken in each program of studies either prior to or concurrently with the work on the thesis.

Students applying to enter the Master of Arts in Education degree program must include with their application materials a written statement of the area of interest to be pursued in the thesis. In addition to the general requirements for admission to this degree program, acceptance will depend upon the availability of a suitable thesis supervisor.

The Master of Education (M.Ed.)

This degree is intended for those students who wish to improve their professional skills. A minimum of five credits (5.0) obtained through graduate course offerings or four credits (4.0) obtained through graduate course offerings and a thesis (EDU 610.0) is required. If a student decides to write a thesis, EDU 611.0 (Research Skills for Practicing Educators) is generally required to be taken either prior to or concurrently with the work on the thesis.

Students enrolled in the Master of Education program will be required to develop a program which reflects a specialization. This will be achieved through one of the following ways.

1. Specialization in Curriculum and Instruction. This program is for teachers who intend to remain teaching in the classroom and who wish to improve their instructional practice. This program must contain:
 - a. two of EDU 617.0, 619.0, 620.0, 685.0, or 686.0;
 - b. one credit (1.0) with a direct "curriculum" focus;
 - c. two credits (2.0) chosen by the student (electives).

Teaching English as a Second or Foreign Language Option

A student specializing in Curriculum and Instruction may choose to concentrate on the Teaching of English as a Second or Foreign Language. Students electing this option should follow the program of study outlined below.

- a. Two of EDU 617.0, 619.0, 620.0, 685.0, or 686.0
 - b. EDU 656.0: Curriculum & Instruction in TESL/TEFL
 - c. EDU 655.0: Linguistics for Teachers
 - d. EDU 657.0: Principles of Language Acquisition for Educators
2. Specialization in Administration. This program is intended for teachers who are either practising school administrators or who wish to develop the necessary skills to become a school-based administrator. This program must contain:
- a. EDU 660.0: Educational Administration;
 - b. EDU 662.0: Educational Supervision;
 - c. one of EDU 617.0, 619.0, 620.0, 685.0, or 686.0;
 - d. two credits (2.0) chosen by the student (electives).
3. Other Specializations. Students may develop a unique program of study in order to meet their own personal or professional goals and interests. It should be noted that such programs must reflect a particular theme in educational practice or theory. In order to have such a program approved, each student must develop a written statement of the particular theme which he or she wishes to pursue. The selection of courses for this specialization will then be made in conjunction with the Dean of Education and will be related to the stated theme.

Additional Information

1. Students who follow one of the two "standard" programs of specialization (i.e., Curriculum and Instruction, or Administration) may receive approval for the program after filing a completed "Program Planning Form" (available from the Dean's Office) with the Office of the Dean.
2. Students may have one graduate course taken at another university credited towards their Master's degree program. If a student wishes this consideration, application must be made in writing to the Dean of Education prior to taking the course from the other university. The application must include a calendar description of the course to be taken. In order to be approved, the course must relate to the student's program at Saint Mary's University.
3. The Master's program is available on a full-time or part-time basis. A part-time student wishing to enroll in more than one credit (1.0) must have the prior written approval of the Dean of Education.
4. The Faculty of Education produces each year a Graduate Handbook which outlines the program in detail.

Application Procedure

1. Complete application forms and make sure that all documents required are complete and returned with the application.
2. Ensure that supporting documents (transcripts, references, etc.) are sent to the University. The Director of Admissions does not undertake to send for transcripts or references.
3. Applications with all supporting documents should be sent to the Director of Admissions, Saint Mary's University.
4. Applications will be considered by the Faculty of Education Admissions Committee only after all required materials and documents have been received.
5. Applications will be considered throughout the year by the Faculty of Education Admissions Committee, but normally not in the period from June 15 to September 15.

Registration Procedure

1. In order to ensure that all students are able to enroll in the courses they require, a priority enrollment system has been implemented.
2. Students who will be attending full-time and students who have only one credit (1.0) remaining to complete their degree will be given the highest priority for course selection. Then, students will be assigned a priority for course selection based upon the number of credits they have left to complete their degree.
3. Students are advised to read the *Registration Book* carefully in order to determine the time for registration. Registration priority will be lost if the student does not register at the assigned time.

The following constitute the offerings in these graduate programs. Detailed course descriptions are found in Section of this Calendar.

601.0/602.0	Master of Arts in Education Thesis
610.0	Master of Education Thesis
611.0	Research Skills for Practicing Educators
615.0	Media Studies and Education
616.0	Gender and Education
617.0	Curriculum Theory and Critical Pedagogy
619.0	Curriculum in Practice
620.0	Curriculum Theory
622.1(.2)	Curriculum in Historical Perspective (General)
623.1(.2)	Curriculum in Historical Perspective (Nova Scotia)
624.0	Curriculum Development: Science
625.0	Instructional Media
627.0	Classroom Communication
629.0	Curriculum Implementation: Science
633.0	Critical Pedagogy and the English Curriculum
635.1(.2)	Principles of Social Psychology and Educational Research
636.1(.2)	The Application of Social Psychology to Education
637.0	Effective Teaching and Personality Development
638.1(.2)	Principles of Learning Theory in Education
639.1(.2)	The Application of Learning Theory in Education
640.0-646.0; 647.1(.2)-649.1(.2)	Selected Topics Courses
651.1(.2)	Comparative Education I
652.1(.2)	Comparative Education II
655.0	Linguistics for Teachers
656.0	Curriculum and Instruction in Teaching English as a Second or Foreign Language
657.0	Principles of Language Acquisition for Educators
660.0	Educational Administration
662.0	Educational Supervision
663.1(.2)	School and Community: Analysis
664.1(.2)	School and Community: Case Studies
666.0	Teaching Critical Thinking
671.0	Social Issues and Education
673.1(.2)	Innovations in Education I
674.1(.2)	Innovations in Education II
675.0	Global Issues and Education
676.0	Education and Development
680.1(.2)	The Public School and Religious Education
681.1(.2)	The Public School and Values Education
682.1(.2)	The School in a Multi-Faith Society
684.0	Curriculum and Instruction: Social Studies
685.0	Models of Teaching as Dynamics of Curriculum
686.0	Models of Teaching for Instructional Design
687.0	Computers and the Classroom Teacher
688.0	Models of Teaching: Developing a Repertoire
690.1(.2)-693.1(.2)	Individual Study
696.0	Business Education

**Continuing
Education**

Section

4

Continuing Education

The Division of Continuing Education coordinates administration of University programs for part-time and mature learners. This includes a summer sessions program, admission advising for mature and non-degree students, courses in extension centres, coordinated programs with professional associations, and an extensive program of non-credit courses.

Part-time Degree Programs

It is possible to complete the Bachelor of Arts and the Bachelor of Commerce programs entirely through part-time, evening study. As well, it is possible to begin the Bachelor of Science and Diploma in Engineering programs by part-time study. Each year the Division of Continuing Education publishes a schedule of late afternoon and evening courses to assist part-time students in planning their programs. Part-time students are encouraged to seek academic counselling from the dean of their faculty, the chairperson of the department in which they are majoring, or their designated faculty advisor.

Summer Sessions

Saint Mary's University offers a wide selection of courses in two summer sessions offered each year. The tentative dates for the summer sessions are listed in the Calendar of Events in the front of this academic calendar. A preliminary listing of summer school courses is available from the Division of Continuing Education by December. A brochure detailing all of the summer session course offerings is published each year in early March.

Mature and Non-Degree Students

The staff of the Division of Continuing Education hold regular information sessions on program availability and application procedures for mature and non-degree students. For details of the mature and non-degree admission procedures, consult Section 2 of this Academic Calendar.

Saint Mary's at the World Trade Centre

Our downtown office at the World Trade Centre draws upon the academic resources of the University to deliver programs and courses for the benefit of the workplace, the business sector and the local economy. Through its initiative at the World Trade Centre, Saint Mary's University recognizes its commitment to developing innovative managerial practices that promote business success.

Extension Centre Courses

Each year Saint Mary's University offers degree credit courses in a number of off-campus extension centres. In the past courses have been offered in Bridgewater, Truro, Sackville, Dartmouth, downtown Halifax, Sydney, and Charlottetown. The courses are offered in a variety of settings: schools, libraries, office buildings, and cultural centres. These courses allow part-time and mature learners to begin or continue their university studies without having to leave their community or place of work. For information on the courses being offered during the academic year and the summer sessions contact the Division of Continuing Education.

Joint Program with Professional Associations

Certificate Program in Human Resource Management

The Human Resource Association of Nova Scotia, in cooperation with the Division of Continuing Education, offers this certificate program in human resource management. It is designed for practitioners of human services management who wish to upgrade their professional skills. It is also available to persons interested in pursuing a career in this field. To earn the certificate, a student must complete sixteen half-credit degree courses, seven of which are compulsory courses, while the remainder are to be chosen from a selection of elective courses. Successful completion of the program (or its equivalent) is a prerequisite for membership in the Human Resource Association of Nova Scotia.

Compulsory Courses

MGT 281.1(.2)	Introduction to Business Management
MGT 383.1(.2)	Organizational Behavior I
MGT 384.1(.2)	Organizational Behavior II
MGT 385.1(.2)	Human Resource Management
MGT 386.1(.2)	Industrial Relations
MGT 485.1(.2)	Wage and Salary Administration
MGT 486.1(.2)	Personnel Staffing, Training and Development

Elective Courses (nine of the following are required)

ACC 241.1(.2)	Introductory Accounting - Part I
ACC 242.1(.2)	Introductory Accounting - Part II
CML 201.1(.2)	Legal Aspects of Business - Part I
COM 293.1(.2)	Managerial Communications
ECO 201.1(.2)	Principles of Economics: Micro
ECO 202.1(.2)	Principles of Economics: Macro
ECO 339.1(.2)	Introduction to Labor Economics
ECO 340.1(.2)	Human Resource Economics
MGT 481.1(.2)	Organization Theory: Structure, Process, Analysis and Design
MGT 483.1(.2)	Interpersonal Behavior I
MGT 484.1(.2)	Interpersonal Behavior II
MGT 488.1(.2)	International Business Management
MGT 496.1(.2)	Collective Bargaining
MGT 497.1(.2)	Issues in Industrial Relations
MSC 225.1(.2)	Introduction to Computers

Application for the certificate program is to be made to the Division of Continuing Education.

Coordinated Programs with Professional Associations

Certified in Management (CIM) Program

This certificate program is offered by the Canadian Institute of Management in cooperation with the Division of Continuing Education. This program can be completed by taking the series of core courses offered by the Canadian Institute of Management or by taking the equivalent Saint Mary's University degree credit courses. The required courses are as follows:

Canadian Institute of Management Core Courses

M1-A	Business Management, Operations and Philosophy
M1-B	Managerial Communications
M2-A	Canadian Business Law
M2-B	Managerial Process and Organizational Behavior
M3-A	Marketing Management
M3-B	Managerial Accounting
M4-A	Financial Management
M4-B	Policy and Administration

Saint Mary's University Equivalent Degree Courses

M1-A	MGT 281.1(.2)	Introduction to Business Management
M1-B	COM 293.1(.2)	Managerial Communications
M2-A	CML 201.1(.2)	Legal Aspects of Business - Part 1
M2-B	MGT 383.1(.2)	Organizational Behavior I
M3-A	MKT 270.1(.2)	Introduction to Marketing
M3-B	ACC 241.1(.2)	Introductory Accounting - Part 1
M4-A	FIN 360.1(.2)	Business Finance I
M4-B	MGT 489.1(.2)	Business Policy

Optional course and courses taken previously may be applied as advanced standing toward the Certificate in Management designation.

For further information and a descriptive brochure contact:

Division of Continuing Education (902) 420-5491,
Fax: (902) 420-5103

or

Canadian Institute of Management, P.O. Box 162,
Halifax, Nova Scotia, B3J 2M4, (902) 465-6245.

Certificate Program in Facility Management

The Recreation Facility Managers Association of Nova Scotia, in cooperation with the Sport and Recreation Commission of Nova Scotia,

and the Division of Continuing Education, Saint Mary's University, offers a certificate program in facility management. The program consists of the following:

- Facility Management and Finance
- Human Resource Management
- Mechanical Systems
- Accounting
- Facility Construction and Maintenance
- Program Scheduling and Promotion

In May, two of these courses are offered in a two-week, intensive format. For information on current program offerings contact the Recreation Facility Managers Association of Nova Scotia, P.O. Box 3010S, Halifax, N.S., B3J 1G6, or Saint Mary's University at the World Trade Centre, 420-5167.

Other Coordinated Programs

Saint Mary's University courses can be used as credit towards professional designations offered by the following associations:

- Appraisal Institute of Canada
- Canadian Hospital Association
- Certified General Accountants Association
- Institute of Canadian Bankers
- Insurance Institute of Canada
- Purchasing Managers Association of Canada
- Real Estate Institute of Canada

For information on any of these programs contact the association

Non-Credit Courses

Microcomputer Courses

The Division of Continuing Education offers an extensive program of microcomputer courses for professionals, managers, office librarians, and other microcomputer users. All courses feature "hands-on" instruction using the IBM Personal Computer or the Macintosh Microcomputer. For a brochure describing current courses, times and prices contact the Division of Continuing Education, 420-5491.

Diploma in Marketing and International Business

The diploma program is designed for managers, professional, and individual business owners who have an in-depth practical knowledge of the principles and strategies of marketing and international business. Of the eight program modules, four focus on marketing and four on international business. For further information, please contact Saint Mary's University at the World Trade Centre, 420-5638.

Management Development for Women

To help employers develop the management performance of capable women, the Management Development for Women program provides practical skills in management functions in a supportive learning environment. This ten month program, offered jointly by Mount Saint Vincent University and Saint Mary's University, gives participants a thorough grounding in management skills through intensive classroom learning and in-depth assignments. For information please contact Saint Mary's at the World Trade Centre, 420-5638.

Professional Development Programs

Recognizing that learning is lifelong, Saint Mary's University offers a variety of courses for career and professional development. Past courses include Global Economic Trends, International Trade and Exporting, and Diversity Management in the Workplace. More extensive programs for managers are the Certificate in Communications at Work, and the Certificate in Financial Management.

University Preparatory Courses

The Division of Continuing Education offers upgrading courses in mathematics, writing skills and study skills. There are also several courses offered in English as a Second Language. Preparation and review courses are offered for both the General Management Admissions Test (GMAT) and the Law School Admissions Test (LSAT). For descriptive course brochures please contact the Division of Continuing Education at 420-5491.

General Interest Courses

Each year a variety of general interest courses for personal development and enjoyment are offered. In past years, these courses have included ElderLearners, Figure Drawing, General Drawing, Painting and Watercolours, Conversational French, Chinese, and Slide Photography. For more information on current course offerings please contact the Division of Continuing Education at 420-5491.

Information

Descriptive pamphlets, summer session brochures, and evening program schedules are available from the Division of Continuing Education, Saint Mary's University, Halifax, Nova Scotia, B3H 3C3. Telephone (902) 420-5492; Fax (902) 420-5103.



A non-credit class



Agricultural history of Nova Scotia

Description of Courses

Section

5

of the courses described in this Calendar
will be offered in 1994-95. Students are
advised to consult the academic
calendar for those courses which will be taught
in the 1994-95 academic year and the time(s)
they will be offered.

Accounting (ACC)

Chairperson, Professor
Professors
Associate Professors

R. Chesley
T. Cheng, F. Dougherty
D. Bateman, B. Emerson,
B. Gorman, P. Secord,
N. Young

Assistant Professors

G. Ansong, J. Archambault,
M. Archambault, M. Nigrini

The Department of Accounting offers a program for accounting majors which will prepare students for careers in professional accounting, industry, government and institutions. The Department also offers courses in financial and managerial accounting and information systems for all Commerce students.

Commerce graduates may receive exemption from many of the courses and examinations conducted by the Atlantic School of Chartered Accountancy, and various other institutes of chartered accountants, the Society of Management Accountants, and the Certified General Accountants Associations. The exemptions are based upon specific courses taken and the grades obtained in the undergraduate program. Details of these exemptions may be obtained from the Chairperson of the Department.

The Accounting Major: In addition to meeting the general requirements for a Bachelor of Commerce degree, students must complete the following:

Year 3

ACC 323.1(.2) Management Information Systems I
ACC 334.1(.2) Cost Accounting
ACC 341.1(.2) Intermediate Financial Accounting I
ACC 342.1(.2) Intermediate Financial Accounting II
ACC 345.1(.2) Financial Accounting Theory

Year 4

ACC 455.1(.2) Financial Accounting Seminar or
ACC 470.1(.2) Management Accounting Seminar
one Accounting elective (1.0) - see note (i) below
two non-Commerce electives (2.0)
one free elective at 200-level or above (1.0) - see note (ii) below

Notes:

(i) MSC 324.1(.2), MSC 326.1(.2), or MSC 335.1(.2) satisfies this requirement.

(ii) CML 202.1(.2) is normally required by professional accounting associations.

Students with a grade of D in ACC 242.1(.2), ACC 341.1(.2) or ACC 342.1(.2) are advised against pursuing an accounting major.

241.1(.2) Introductory Accounting - Part I

Prerequisite: ECO 201.1(.2) or 202.1(.2); MGT 281.1(.2); or appropriate work experience, determined in advance of registration by the Chairperson.

Part I of a two-course series. This course is concerned with a study of basic accounting concepts and principles, their application to business transactions and financial statements, and an introductory consideration of the balance sheet and income statement, and statement of changes in financial position. This course is to be followed by Introductory Accounting - Part II.

Classes 3 hrs. and lab 1 hr. a week. 1 semester.

242.1(.2) Introductory Accounting - Part II

Prerequisite: ACC 241.1(.2); ECO 201.1(.2); ECO 202.1(.2); or appropriate work experience, determined in advance of registration by the Chairperson.

Part II of a two-course series. This course deals with accounting for intercorporate investments, analysis of financial statements, introduction to manufacturing accounting and managerial uses of accounting data.

Classes 3 hrs. and lab 1 hr. a week. 1 semester.

323.1(.2) Management Information Systems I

Prerequisite: ACC 242.1(.2) and MSC 225.1(.2).

The study of computer-based data processing and information systems, management problems of computers in business such as organization, control and feasibility.

Classes 3 hrs. a week. 1 semester.

332.1(.2) Planning and Control

Prerequisite: ACC 242.1(.2) and MSC 225.1(.2).

Covers concepts and techniques of planning and control such as profit planning, financial forecasting, budgets, performance measurements, management control systems, and the analysis of performance.

Classes 3 hrs. and lab 1 1/2 hrs. a week. 1 semester.

334.1(.2) Cost Accounting

Prerequisite: ACC 332.1(.2); FIN 360.1(.2); and MSC 206.1(.2) or 301.1(.2).

This is a course about cost accounting information for decision analysis. It covers both the accumulation of cost and the control features of information provided by the cost system. Topics introduced in ACC 332.1(.2), such as job order costing, standard costs and variance analysis, will be explored for their relevance to decision analysis.

Classes 3 hrs. a week. 1 semester.

341.1(.2) Intermediate Financial Accounting - Part I

Prerequisite: ACC 242.1(.2) and MSC 225.1(.2).

Part I of a two-course series which provides a comprehensive study of financial accounting and financial reporting. This course is to be followed by Intermediate Financial Accounting - Part II.

Classes 3 hrs. a week. 1 semester.

342.1(.2) Intermediate Financial Accounting - Part II

Prerequisite: ACC 341.1(.2).

Part II of a two-course series which provides a comprehensive study of financial accounting and financial reporting.

Classes 3 hrs. and lab 1 1/2 hrs. a week. 1 semester.

345.1(.2) Financial Accounting Theory

Prerequisite: ACC 341.1(.2).

Study of objectives of financial accounting, major accounting theories, evolution of financial accounting theory and practice, survey of contemporary accounting practice with emphasis on latest developments and issues. This course should be taken concurrently with ACC 342.1(.2) or after the completion of ACC 342.1(.2).

Classes 3 hrs. a week. 1 semester.

357.1(.2) International Accounting

Prerequisite: ACC 332.1(.2).

An introduction to accounting in the international environment, building on introductory financial (and to a lesser extent, managerial) accounting to provide the requisite background to understand accounting issues facing multinational firms. Topics will include: international accounting standards; foreign exchange, foreign currency transactions, and translation of financial statements; intercorporate investment, including consolidation of subsidiaries, both foreign and domestic; inflation and current value accounting; transfer pricing; as well as information systems and audits.

423.1(.2) Accounting Information Systems and Control

Prerequisite: ACC 323.1(.2), 332.1(.2) and 341.1(.2); also MGT 384.1(.2).

This course expands on the systems and control concepts introduced in ACC 323. Accounting transaction processing, the use of accounting information systems (AIS), and their design and construction are analyzed. Internal controls within AIS, evaluation techniques, and techniques for developing, documenting, and monitoring the effectiveness of AIS are investigated.

Classes 3 hrs. a week. 1 semester.

ACC 323.1(2) Management Information Systems II

Prerequisite: ACC 323.1(2).

This course is an introductory systems analysis and design course covering fundamental systems concepts; the systems development life cycle; and processes, tools and techniques for each stage in the life cycle, with emphasis on requirements analysis and design.

Project management, proposal development and presentation and benefit analysis techniques are also discussed. These concepts and skills are applied in a major practical case project.

Classes 3 hrs. a week. 1 semester.

ACC 342.1(2) Advanced Financial Accounting - Corporate Accounting

Prerequisite: ACC 342.1(2).

This course includes in-depth consideration of partnerships, long-term investments in equity securities, international operations, non-profit and not-for-profit organizations, and fund accounting.

Classes 3 hrs. and lab 1 1/2 hrs. a week. 1 semester.

ACC 342.1(2) Advanced Financial Accounting - Special Topics

Prerequisite: ACC 342.1(2) and 345.1(2).

This course includes extended consideration of special topics in corporate accounting, branch accounting, fiduciary accounting, partnership, bankruptcy and liquidations, and alternatives to historical cost.

Classes 3 hrs. a week. 1 semester.

ACC 361.1(2) Financial Statement Analysis

Prerequisite: FIN 361.1(2).

This course will examine how accounting information can be used to evaluate a firm. The importance of economic conditions, accounting policy choice, and strategic management decisions for statement analysis will be considered. The course will also explore the usefulness and limitations of public disclosure for decision-making. Techniques for analysis and forecasting will be discussed as well as current research findings that impact on financial statement analysis.

Classes 3 hrs. a week. 1 semester.

ACC 383.1(2) Management Control Systems

Prerequisite: ACC 332.1(2) and MGT 383.1(2)/384.1(2).

This course is a study of the management control system which examines problems of effective and efficient control from the perspective of the total organization: expense centers, profit centers, investment centers, budgeting, planning, budgeting, performance appraisal. This course is recommended for non-accounting majors.

Classes 3 hrs. a week. 1 semester.

ACC 342.1(2) Auditing

Prerequisite: ACC 342.1(2).

This course covers the basic concepts and theory of auditing including the auditing environment; the auditor's role; the structure of the profession; responsibilities of auditors; nature and theory of evidence; the auditor's report and other related material.

Classes 3 hrs. a week. 1 semester.

ACC 342.1(2) Taxation

Prerequisite: ACC 342.1(2) or FIN 361.1(2).

This is an introductory study of the theory and procedures of federal income taxation. Both personal and corporation income tax issues are examined.

Classes 3 hrs. a week. 1 semester.

ACC 342.1(2) Financial Accounting Seminar

Prerequisite: ACC 342.1(2) and 345.1(2).

This course is an intensive study of the problems of income determination, asset valuation and liability and equity measurements; a study of the traditional accounting model and the accounting theories that are proposed as a framework for the resolution of the problems in the traditional model.

Classes 3 hrs. a week. 1 semester.

ACC 332.1(2) Internal/Operational Auditing

Prerequisite: ACC 332.1(2) and 342.1(2), or permission of Chairperson and instructor.

This course is a study of the concepts and theory of internal/operational auditing including the internal/operational audit environment; the structure of

the internal/operational auditing profession; the duties, responsibilities and procedures of internal/operational auditors; and the relationship between the internal/operational auditing function and the external audit.

Classes 3 hrs. a week. 1 semester.

ACC 334.1(2) Management Accounting Seminar

Prerequisite: ACC 334.1(2).

This capstone course in the managerial accounting sequence provides an exposure to recent developments in the management accounting literature. The course introduces material relating to operations management, strategic planning, and management control systems. Integrating this material with knowledge gained in previous courses is a major purpose of the course. The course develops an understanding of the interactions between planning and control systems. These relationships deal with the three basic issues of management accounting: the choice of useful information, the problems in its measurement, and the behavioral consequences of using the data.

Classes 3 hrs. a week. 1 semester.

ACC 323.1(2) Accounting and Small Business

Prerequisite: ACC 323.1(2), 332.1(2), and FIN 360.1(2).

This course looks at a variety of accounting issues from the perspective of small business: business plans and feasibility studies, accounting information systems, internal control, working capital management, financial statement analysis, business valuation, and/or other issues of current concern.

Classes 3 hrs. a week. 1 semester.

ACC 492.1(2) Directed Study

Prerequisite: permission of Chairperson and instructor.

This course provides an opportunity to study specific areas of accounting, auditing, taxation or MIS. A detailed course proposal must be submitted and will be evaluated on its educational merits. In-depth study of accounting concepts, systems, auditing, or taxation issues are intended to be within the scope of this course.

The following courses are available only to students registered in the Master of Business Administration Program and with permission of the MBA Director to students registered in other master's programs.

ACC 540.1(2) Financial Accounting

This course provides an introduction to financial accounting and presumes no prior knowledge of the subject. Using a conceptual approach, the student is given a thorough understanding of financial accounting concepts, principles and practices. Emphasis is placed on providing the student with a fundamental knowledge of how to interpret and analyze financial statements and also with an appreciation of the limitations inherent in published financial information.

ACC 540.1(2) Managerial Accounting

Prerequisite: ACC 540.1(2).

The primary objective of this course is to provide the student with a knowledge of the various types of accounting information which are available for use by managers in decision-making. The student examines selected cost concepts and the appropriateness of their use in diverse areas of decision-making. Financial forecasting, budgeting, profit-planning and performance measurement make up the major portion of the course content.

ACC 500.1(2) Management Information Systems

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course presents a management-level overview of information systems and related planning, organizing and control issues. Fundamental concepts in systems, computing and communications technology, applications, information management, systems development, internal control and strategic uses of information technology are introduced, illustrated and applied in case studies.

ACC 500.1(2) Financial Reporting: Problems and Issues

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course focuses on the problems inherent in the process of communicating financial information to various interested groups outside the business organization. Commencing with an examination of the basic objectives of financial statements and the information

requirements of various financial statement users, the course provides an opportunity to evaluate generally accepted accounting principles currently in use. Alternative asset valuation and income measurement models are considered as well as current financial reporting issues.

648.1(.2) Management Control Systems

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

Designed to provide the student with an understanding of the nature of management control systems, this course places particular emphasis on organizational structure and the control process. Various applications of the 'responsibility center' concept are examined as well as planning, budgeting and performance appraisal. The emphasis is on the design of systems suitable to the organization and its objectives and includes consideration of both profit-oriented and non-profit organizations.

650.1(.2) Managerial Decision Analysis and Information

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, an accounting major undergraduate degree including a quantitative managerial accounting course, and permission of Department.

This course will explore formal decision analysis to assess the approach and the requirements it places on the information system. Focus will be on formal rational models of decision analysis under certainty and uncertainty including decision support systems and computerized analysis.

652.1(.2) Integrative Managerial Accounting

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, ACC 650.1(.2), and permission of Department.

Current developments in managerial accounting and integrative problem analysis will be emphasized in the course and modern management thinking and analysis approaches will be included.

654.1(.2) Advanced Financial Accounting Theory

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, an accounting major undergraduate degree including an accounting theory course, and permission of Department.

Accounting theory involves conceptual, historical, and empirical developments. Exploration of these issues in light of recent developments will be made in this course. Included are theoretical issues surrounding advanced accounting topics such as not-for-profit organizations, foreign currency, business combinations, non-going concerns, partnerships, and resource industries.

656.1(.2) Integrative Financial Accounting

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, ACC 654.1(.2), and permission of Department.

Theory and practice will be combined to investigate complex financial accounting issues and problems. Recent research and practice will be explored as part of this course.

657.1(.2) International Accounting

Prerequisite: ACC 540.1(.2) and 548.1(.2).

An introduction to accounting in the international environment and especially within multinational enterprise, which will involve in-depth examination of international accounting issues. Topics will include: international accounting standards; foreign exchange, foreign currency transactions, and translation of financial statements; intercorporate investments; accounting for changing prices; transfer pricing; international aspects of taxation; culture and accounting; as well as accounting in developing countries.

658.1(.2) Computer Based Auditing

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, an accounting major undergraduate degree including an auditing course, and permission of Department.

This course investigates internal controls and audit in computer and data communications environments. Topics include hardware and software control features, data security, control evaluation, computer assisted auditing, statistical sampling and working paper preparation and selected current topics. Microcomputer and networked systems will be emphasized.

660.1(.2) Integrative Public Auditing

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, ACC 658.1(.2), and permission of Department.

Specialized public auditing areas such as forensic audits, environmental audits, and computer systems investigations will be combined with the study of recent audit questions of concern to both practitioners and researchers.

662.1(.2) Integrative Internal Auditing

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, ACC 658.1(.2), and permission of Department.

This course covers value-for-money auditing, and operational and management audits, investigations of computer systems and emerging issues in internal auditing. Modern management practice and approaches will constitute necessary background.

664.1(.2) Advanced Taxation Legislation - Corporate and Sales

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, an accounting major undergraduate degree including an income tax course, and permission of Department.

Tax legislation is not only complex but subject to continual change. This course will explore the recent changes in both corporate and sales tax legislation and engage in an in-depth study of selected areas of the legislation relevant to business decisions.

666.1(.2) Taxation and Financial Planning

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, ACC 664.1(.2), and permission of Department.

The tax implications for various complex business decisions such as mergers, capital structuring, investments, and business valuation will be investigated. Recent income tax legislation will also be considered as part of the investigation conducted.

688.1(.2) Advanced MIS

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, an Accounting MIS course, and permission of Department.

This course analyzes advanced topics in computerized information systems from an accounting perspective. Systems analysis and design, database design, systems documentation and the role of expert systems and artificial intelligence will be explored.

690.1(.2) Seminar in Accounting

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, Department Chairperson, and instructor.

The course deals with selected topics in the accounting area. The topics to be covered will vary depending on the interests of the students and instructors.

692.1(.2) Directed Study

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director, Department Chairperson, and instructor.

Intended to supplement or provide an alternative to the regular accounting courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

698.1(.2) Research Seminar

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director, Department Chairperson, and instructor.

A study of research problems and methodologies in accounting, with each student preparing and defending a research proposal of his/her own based upon a critical review of current literature. This course is designed to aid students in the development of their project courses.

699.1(.2) Research Project

Prerequisite: ACC 698.1(.2) or permission of MBA Director.

Each student is required to complete a project involving the practical application of the research concepts and techniques used in accounting, under the direct supervision of a faculty member. Interdisciplinary projects are acceptable.

Anthropology (ANT)

Chairperson, Assistant Professor	S. Walter
Professors	P. Erickson, H. McGee
Associate Professor	S. Davis
Adjunct Professors	J. Dayle, M. Zelenietz

Departmental Policy

- To obtain a major-concentration, a student is required to have completed at least six credits (6.0) in anthropology. These must include ANT 200.0, 450.0, and three additional credits (3.0) at the 200 level or above.
- To obtain an honors concentration in anthropology, a student is required to (a) satisfy pertinent Faculty of Arts requirements; (b) have a cumulative quality point average of at least 3.00 for admission to the program; (c) an approved statement of a thesis topic; (d) meet departmental major requirements; (e) complete the equivalent of ten credits (10.0) in anthropology, including the following obligatory core: ANT 200.0, 270.0 or 271.1(2)/272.1(2), 300.0 or 301.1(2)/302.1(2), 380.0, 390.0, 450.0, and 499.0; (f) in addition, honors majors are urged to take at least one of the following methods courses: ANT 321.0, 360.0, and 410.0 or 411.1(2)/412.1(2).
- The program for majors must be approved by the student's departmental advisor who will be assigned at the time the major is declared.
- In the case of re-numbered courses, students are advised that only one credit (1.0) can be obtained for one course, even if that course was offered on different levels in different years.
- ANT 200.0, 201.0, 221.1(2), 222.1(2), 271.1(2), 272.1(2), and 272.0 do not have prerequisites.
- The Department considers courses in the disciplines of anthropology, economics, geography, political science, psychology, and sociology as social sciences.
- Students are advised that not all courses listed are taught every year. Therefore, students are urged to check with the Department prior to registration to confirm the Department's offerings.
- The Department offers a range of courses from the general introductory to specialized area or topical courses. The following guide, noted below, is intended to outline the diversity of the Department's course offerings.
- The Department offers a prize for excellence in anthropological writing to major or honors students in anthropology. The prize is named for Prince John Loewenstein, the founder of the Department, and consists of a cash award, certificate of merit, and the prizewinner's name will appear on a memorial plaque. Details may be obtained from the Chairperson of the Department.

General Introductory Course

200.0

Introductory Specialized Courses

201.0; 221.1(2); 222.1(2); 271.1(2); 272.1(2)

Advanced General Courses

301.1(2); 302.1(2); 360.0; 380.0; 390.0

Advanced Specialized Courses

410.0; 315.0; 320.0; 330.0; 335.0; 340.0; 350.0; 365.1(2); 366.1(2); 445.0; 470.0

Advanced Specialized Courses with a Geographical Focus

222.0, 325.0; 326.1(2); 327.1(2); 371.1(2); 372.1(2)

Method Courses

321.0; 361.0; 411.1(2); 412.1(2); 461.0

History and Theory Course

450.0

Special Topics Courses

399.0; 480.0

Honors Thesis Course

499.0

200.0 Introduction to Anthropology

An introduction to the scientific study of humanity. Origins, physical and cultural evolution and diversification, prehistory, ecological adaptation, social organization, economic systems, religion, language and value systems of the world's peoples.

201.0 Women: A Cultural Perspective [WMS 201.0]

The differential status of women and men in a variety of societies will be examined. Special attention will be given to the portrayal of "woman" in expressive media. Differential patterns of enculturation for women and men will be the focal, but not exclusive, explanation thesis.

221.1(2) Native Peoples of Canada

A survey of the varied Native cultures of Canada. Some of the socio-cultural changes associated with contacts between indigenous peoples and Europeans are considered. Variation in roles assumed by men and women are discussed.

Note: Not open to students who have already received credit for ANT 220.0.

222.1(2) Native Peoples of the United States and Mexico

A survey of the diverse Native cultures and societies of the United States and Mexico. Cultural ecology and theories of socio-cultural evolution are considered as are some of the changes linked to European colonization of these regions.

Note: Not open to students who have already received credit for ANT 270.0.

271.1(2) Introduction to Archaeology

An introduction to archaeology and its contribution to an understanding of the development of culture. The course will investigate the history of the discipline and the development of techniques and principles used by archaeologists throughout the world.

Note: Not open to students who have already received credit for ANT 220.0.

272.1(2) Introduction to World Prehistory

The course investigates the earliest known tools and their associated activities. The development of technology is traced from the early stone age through the iron age in a world-wide setting.

Note: Not open to students who have already received credit for ANT 270.0.

301.1(2) Nature of Culture

Prerequisite: ANT 200.0, SOC 200.0, or permission of instructor.

An introduction to the concept of culture as an essential aspect of human nature. Emphasis will be given to contemporary theories concerning society and culture.

Note: Not open to students who have already received credit for ANT 300.0.

302.1(2) Social Organization

Prerequisite: ANT 200.0, SOC 200.0, or permission of instructor.

This course introduces the student to the basics of social structure and anti-structure. Emphasis is placed upon the importance of kinship, politics, economics, beliefs, and the arts for an understanding of human socio-cultural life.

Note: Not open to students who have already received credit for ANT 300.0.

310.0 Applied Anthropology: Culture Change and Development

Prerequisite: a social science credit (1.0) or permission of instructor.

An introduction to the applications of socio-cultural anthropology. Consideration is given to the nature of society and culture as well as to anthropological and other theories of culture change, including development.

315.0 Peasant Society and Culture

[IDS 315.0]

Prerequisite: an introductory socio-cultural anthropology credit (1.0) or permission of instructor.

A treatment of theories and substantive studies of peasant society and culture.

320.0 World Ethnology

Prerequisite: ANT 200.0; ANT 220.0 or 221.1(.2) or 222.1(.2); or permission of instructor.

A survey of selected societies and cultures of Africa, North America, South America, Asia and Oceania. Ethnographic examples include peoples with varied economies and social systems. Foragers, horticulturalists, pastoralists and intensive food producers are represented as are "egalitarian" peoples, societies emphasizing inherited rank, and non-industrialized state systems. Theories of socio-cultural evolution are considered.

321.0 Ethnohistory

Prerequisite: ANT 200.0 or permission of instructor.

Ethnohistory and the development of ethnohistorical research, with particular reference to North America. This course is concerned with the anthropologist's use of archival material, and the critical evaluation of different types of oral traditions as sources of historical information. Some ethnohistorical studies are examined.

322.0 Native Peoples of Atlantic Canada

An examination of the social and cultural history of the native peoples of the Atlantic area. The political, religious, technological, economic, kinship and aesthetic systems of the Abanaki, Beothuk, Maliseet-Passamaquoddy, Micmac, and Penobscot ethnic groups will be discussed within a temporal framework.

325.0 Ethnology: Oceania

Prerequisite: a socio-cultural anthropology credit (1.0) or permission of instructor.

Ethnological survey of selected (representative) societies of Polynesia, Micronesia, Melanesia and Australia.

326.1(.2) Ethnology: East Asia

Prerequisite: ANT 200.0 or permission of instructor.

A survey of the cultures and societies of the peoples of China, Korea, Japan, Mongolia, Siberia, and Southeast Asia. Special attention will be given to the socio-cultural integration of community and state.

327.1(.2) Ethnology: Japan

Prerequisite: ANT 200.0 or permission of instructor.

An examination of the culture and society of contemporary Japan. Emphasis will be placed upon the topics of world view, community type, and gender issues.

330.0 Warfare and Aggression: Anthropological Approaches to Human Conflict

Prerequisite: ANT 200.0.

The course will examine the nature and structure of human conflict by evaluating anthropological theories of warfare and aggression in light of the case materials available on small-scale societies. In addition, particular attention will be devoted to: (1) the role of racism in human conflict, and (2) a critique of sociobiological theories of human aggression.

335.0 Psychological Anthropology

Prerequisite: ANT 200.0, PSY 201.0, or permission of instructor.

Deals with the interaction between the individual and culture. Examines roots of both individual and group differences and explores human nature from an anthropological perspective. Looks at complex relations between heredity, culture and environment in a cross-cultural context.

340.0 Socio-cultural Aspects of Health and Illness

Prerequisite: a social science credit (1.0).

This course examines the relationships among health, illness, society, and culture. Conceptions of health and illness differ around the world, particularly when they concern the definitions, causes, and cures of ill health. Light will be shed on these complexities by examining cross-cultural views of health and illness, theories of disease causation, deviance and stress, culture-bound and transcultural syndromes, non-Western medical systems, trance and possession and other aspects of health and illness.

350.0 Anthropology of Religion

[REL 316.0 (416.0)]

Prerequisite: ANT 200.0 or permission of instructor.

Examination of religious behavior from anthropological perspective. Cross-cultural consideration of such questions as origin and nature of religion, religion as adaptation to environment, religion and culture change.

360.0 Method and Theory in Archaeology

Prerequisite: ANT 200.0 or permission of instructor.

Concepts and methods of archaeology, lab analysis, survey methods, and collection of data. Suggested for students who intend to take field work courses in anthropology.

361.0 Fieldwork in Archaeology

Prerequisite: one of ANT 200.0, 271.1(.2)/272.1(.2), 360.0, or 371.1(.2)/372.1(.2); and permission of instructor.

Course involves detailed instruction in, and practical application of, archaeological field techniques in the excavation of archaeological sites. The course will offer training in the laboratory analysis of artifacts recovered in the excavation phase of the course. This course may be offered during summer sessions. Please consult the Departmental Chairperson regarding availability.

3 weeks field work and 3 weeks lab.

365.1(.2) Myth: Anthropological Approaches [REL 365.1(.2)/465.1(.2)]

Prerequisite: ANT 200.0 or REL 201.0 or REL 202.0 or permission of instructor.

The student will be exposed to a number of theoretical approaches employed by anthropologists in the study of myth. While examples may come from a number of societies, there will be a concentration upon the myth corpus of a single society.

Note: Not open to students who have already received credit for 349.0 [REL 320.0 (420.0)].

366.1(.2) Worldview: Anthropological Approaches [REL 366.1(.2)/466.1(.2)]

Prerequisite: ANT 200.0 or REL 201.0 or REL 202.0 or permission of instructor.

This is an examination of anthropological theories pertaining to worldview (a people's perception of the world and how it works). While examples will be drawn from many societies, the course will concentrate upon the beliefs current in a single society.

Note: Not open to students who have already received credit for 349.0 [REL 320.0 (420.0)].

371.1(.2) Prehistory of Canada

Prerequisite: ANT 200.0 or 271.1(.2) or permission of instructor.

A survey of the development of prehistoric cultures in Canada. The course uses the archaeological record from the Arctic, sub Arctic Northeast, Northern Plains and West Coast to follow cultural change.

Note: Not open to students who have already received credit for 370.0.

372.1(.2) Prehistory of the United States

Prerequisite: ANT 200.0 or 271.1(.2) or permission of instructor.

A survey of the development of prehistoric cultures in the United States. The course uses the archaeological record from the Plateau, Southern Great Plains, Southern Northeast, California, Great Basin Southwest and Southeast to follow cultural change.

Note: Not open to students who have already received credit for 370.0.

380.0 Physical Anthropology

Prerequisite: ANT 200.0 or permission of instructor.

An advanced treatment of primate behavior, primate anatomy and human genetics involving laboratory and workbook exercises.

390.0 Linguistic Anthropology

Prerequisite: ANT 200.0 or permission of instructor.

Comprehensive cross-cultural introduction to language and speech behavior; to the relations between language and culture generally; the analysis and description of languages in terms of their constituent units and dynamics; to the social functions of language; applied linguistics and literacy.

399.0 Directed Independent Study

Directed independent study on a reading or research program agreed to by student and instructor. The student must obtain instructor's approval of proposed study plan before registering for the course.

411.1(.2) Data Collection in Socio-cultural Anthropology

Prerequisite: at least 2.0 credits at the 300 level or above from any department in the Faculty of Arts.

This course introduces the student to the techniques of recording information pertaining to human socio-cultural experience. Special attention will be given to computer assisted means of recording qualitative data. Usually the student will be expected to participate in a research project within the metropolitan area.

Not open to students who have already received credit for ANT 361.0.

ANT 362.0 (2) Explanation in Socio-cultural Anthropology

Prerequisite: at least 2.0 credits at the 300 level or above from any department in the Faculty of Arts.

Students will be expected to take a body of socio-cultural information and to present it in a manner that communicates an understanding of a well defined intellectual issue. Although emphasis is placed upon qualitative approaches, quantification will be employed when appropriate. While essay format will generally be employed by most students, there is an opportunity to explore other formats including documentary radio or television scripts, museum exhibition, and the

Not open to students who have already received credit for ANT 362.0.

ANT 380.0 Evolution and Human Behavior

Prerequisite: ANT 380.0 or permission of instructor.

Examination of physical anthropology's contribution to the nature/culture debate focusing on human sociobiology, human ethnology and human behavioral genetics.

ANT 380.0 History of Anthropological Theory

Prerequisite: ANT 200.0 and two additional credits (2.0) in anthropology or permission of instructor.

Development of anthropological theory from the Enlightenment to the present with reference to current theoretical issues.

ANT 361.0 Advanced Fieldwork in Archaeology

Prerequisite: ANT 361.0.

Students are expected to have knowledge of field and laboratory techniques used in archaeology. They will conduct their own excavations and analysis of an archaeological site and its material. This course may be offered during summer sessions. Please consult Departmental Chairperson regarding availability.

3 weeks field work and 3 weeks lab.

ANT 470.0 Forensic Anthropology

Prerequisite: ANT 380.0 or permission of instructor.

Forensic anthropology is the analysis of human skeletal remains in the legal investigation of accidents and crimes involving death. This course surveys the field of forensic anthropology in lectures, readings, seminars and substantial laboratory work.

Classes 1 hr.; lab 1 1/2 hrs.; and seminar 1/2 hr. a week. 2 semesters.

ANT 480.0 Seminar

To be offered in response to expressed student desire for advanced instruction in anthropological topics not covered intensively in substantive course offerings. It will be given as a formal seminar.

ANT 499.0 Honors Thesis

Supervised preparation of a significant research paper for honors students in anthropology.



Cleaning an anthropological find

Asian Studies (ASN)

Committee on Asian Studies

J. Morrison, Coordinator	History
P. Bowlby	Religious Studies
J. Lee	History
H. McGee	Anthropology
H. Ralston	Sociology
B. Robinson	Geography
H. Schwind	Management
S. Walter	Anthropology
S. Wein	Philosophy

There is little question of the place or significance of Asian Studies in university education. Since World War II, we have witnessed the increasing importance of Asia in world politics and economics and have recognized the need for educated citizens to develop a better understanding of the forces involved. An informed acquaintance with the Asian experience in the field of politics, history, culture, philosophy, and religion has become an essential corollary to a full understanding of our own Western experience.

An academic background in Asian Studies will help to prepare students for careers in the diplomatic service, in international trade and industry and in the secondary and university teaching fields.

Saint Mary's University is the only institution in the Atlantic Provinces offering a comprehensive program in Asian Studies.

Regulations for Majors

Majors should choose a supervisor from among the faculty in the Committee on Asian Studies who will oversee their program of study. Aside from the normal university requirements for the Bachelor of Arts degree, students intending to complete a major concentration in Asian Studies are required to obtain at least six credits (6.0). The credits must be obtained from at least three different departments. The list of courses where the credits may be earned is given at the end of the Calendar description.

Regulations for Honors

- Admission to and continuance in the honors program in Asian Studies follows the general regulations of the Faculty of Arts, namely regulations 11, 12, and 13.
- Students seeking an honors degree in Asian Studies are encouraged to pursue a combined honors program in one of the departments offering Asian Studies courses. See Faculty of Arts regulation 14.
- Students in either an honors or combined honors program in Asian Studies must satisfy the following requirements:
 - at least one introductory level credit (1.0) in an Asian language;
 - courses which will acquaint them with the major cultural areas of Asia;
 - at least one Asian Studies credit (1.0) within each of the following departmental groupings:
 - History and Religious Studies;
 - Anthropology, Geography, Political Science, or Sociology;
 - Economics or Management.
 - An honors thesis to be prepared during the final year of study in the program. The topic must be approved by the Asian Studies Committee and the thesis will be supervised and graded by three faculty members chosen by the Asian Studies Committee. Students writing an honors thesis must enroll in Asian Studies 490.1(.2)-499.1(.2) Directed Study.
 - Annual approval of their program of study by the Chairperson of the Asian Studies Committee.

Dual Degree Program

Since it is possible to obtain two undergraduate degrees from Saint Mary's University, for Commerce students it may be very attractive to combine a degree in their field with a major in Asian Studies, especially in light of the interest which the Canadian federal and provincial governments and private industries have in developing trade with the Pacific Rim countries. It is relatively easy to combine Commerce and Asian Studies if Commerce students select their non-commerce and free electives carefully. The second degree can be obtained in a year or less in addition to the normal time requirement

for a Commerce degree. For more information please contact either the Dean of Arts, Dean of Commerce, or the Coordinator of Asian Studies, and also consult the material at the conclusion of the Faculty of Arts entry in Section 3 of this Calendar.

Anthropology

315.0	Peasant Society and Culture
325.0	Ethnology: Oceania
326.1(.2)	Ethnology: East Asia
327.1(.2)	Ethnology: Japan

Asian Studies

301.0; 302.1(.2)-306.1(.2)	Selected Topics in Asian Studies
401.0; 402.1(.2)-406.1(.2)	Selected Topics in Asian Studies
410.1(.2)	Special Topics on Japan
450.0	China, Eternal and Transforming: Travel and Study
490.1(.2)	Directed Study

Economics

310.1(.2)	Development Economics
313.1(.2)	International Finance
315.1(.2)	Comparative Economic Systems
323.1(.2)	Soviet-Type Economics

Geography

330.0	Geography of China
360.0	Geography of Japan

History

209.0	East Asia: From Prehistory to Modern Times
323.0	China Before 1800
324.0	Traditional Japan: History and Culture
325.0	Asian Crossroads: Southeast Asia from 1600 to Independence
342.0	China in Revolution: 1840 to the Present
381.1(.2)	East Asia and the West to 1800
382.1(.2)	East Asia and the West Since 1800
383.1(.2)	Sexuality, Love, and Marriage in East Asia
385.0	Aspects of Global History: One Earth, Many Worlds
392.0	Modern Japan
394.1(.2)	The Emergence of Modern Korea
396.1(.2)	China and Japan in the 20th Century: Ideology, State, and Society
511.0	Modern East Asia, Selected Problems in Modernization

International Development Studies

220.0	Development Studies through Canada World Youth and Crossroads International
300.0	Introduction to Development Studies
400.0	Seminar in Development Studies
420.1(.2)	Special Topics in Development Studies
421.1(.2)	Special Topics in Development Studies
470.1(.2) [570.1(.2)]	Environment and Development

Management

488.1(.2)	International Business Management
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Modern Languages and Classics

Chinese	
100.0	Introductory Modern Chinese
200.0	Intermediate Modern Chinese

Philosophy

325.1(.2)	Ethical Issues in International Development
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Political Science

340.0	The Politics of the Developing Areas
341.0	Government and Politics in East Asia
553.0	International Studies Seminar

Religious Studies

202.0	Introduction to Comparative Religions
325.1(.2) [425.1(.2)]	Myth and Story
326.1(.2) [426.1(.2)]	The Hindu Religious Tradition
327.1(.2) [427.1(.2)]	The Buddhist Religious Tradition
337.1(.2) [437.1(.2)]	Hindu and Buddhist Religious Art
340.1(.2) [440.1(.2)]	Japanese Religious Traditions
341.1(.2) [441.1(.2)]	Political Theology: East and West
342.1(.2) [442.1(.2)]	Religion and War
345.1(.2) [445.1(.2)]	Chinese Religious Traditions

Sociology

- 300.0 Ethnic and Minority Groups
- 301.2 Sociology of Developing Societies
- 301.2 New Religious Movements
- 301.2 Religion in Developing Societies
- 301.2 Gender and Development: Theory and Method
- 301.2 Work and the Empowerment of Women in India
- 302.1(2)-306.1(2) **Selected Topics in Asian Studies**
The subject matter of these courses will be announced from time to time. They will cover various aspects of Asian Studies and will be interdisciplinary in nature. The topics to be examined will be determined by the instructor and/or Department.
- 302.1(2)-406.1(2) **Selected Topics in Asian Studies**
The subject matter of these courses will be announced from time to time. They will cover various aspects of Asian Studies and will be interdisciplinary in nature. The topics to be examined will be determined by the instructor and/or Department.
- 303.1(2) **Special Topics on Japan**
Prerequisite: one Asian Studies credit (1.0) or permission of instructor.
Special Topics on Japan is a seminar to be taught by a Japanese specialist invited to Saint Mary's University.

450.0 China, Eternal and Transforming: Travel and Study

Prerequisite: permission of ASN Coordinator.

This course takes place between May and July at the Shandong Teacher's University in Jinan, China, with guided tours of other urban centres and cultural sites. Students will be accompanied by a faculty member from Saint Mary's, and on-site instruction will be provided by faculty from Shandong. Subjects taught will cover a broad range of topics on Chinese language, history, and culture. The course is offered contingent upon sufficient enrollment.

Time in China is approximately four weeks.

Six weeks full time.

490.1(2)-499.1(2) Directed Study

Prerequisite: permission of ASN Coordinator and instructor.

Intended to supplement or provide an alternative to the regular courses in Asian Studies in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Classes: Tutorial and independent study. 1 semester.



Astronomy and Physics (AST and PHY)

Chairperson, Professor
 Professors
 Observatory Director, Associate Professor
 Undergraduate Coordinator,
 Assistant Professor
 Graduate Coordinator, Assistant Professor
 Assistant Professor
 Adjunct Professor

D. Turner
 W. Long, G. Mitchell
 G. Welch

D. Guenther
 M. Butler
 D. Clarke
 D. Forbes

Astronomy (AST)

Astronomy is an ancient science which can trace some of its earliest practitioners to the neolithic builders of Stonehenge and to Minoan navigators of the third millennium B.C. The modern version of this branch of the physical sciences is interdisciplinary in nature, and draws heavily upon its roots in the cognate areas of physics and mathematics as well as in the fields of chemistry, space science, geology, biology, and computing science. Current research in astronomy and astrophysics relies upon space age detectors and modern computer systems to acquire and analyze large quantities of data, so its graduates are usually familiar with new technological developments as well as with the often-unique analytical approaches used to study objects in the universe. Like physicists, students of astronomy and astrophysics are well qualified to pursue a variety of scientific or teaching careers.

The Department offers programs of study which are designed to provide students with a strong undergraduate experience in both astronomy and physics. In addition to providing courses for degree-seeking students in these areas, the Department offers courses for the non-science major who wants to explore astronomy and physics using a less mathematical and more intuitive approach. AST 201.0 is a non-mathematical course intended for the non-science student. AST 202.0 is an introductory course for science students which provides a broad background in all areas of astronomy. The 300 and 400-level courses are half-credit courses (0.5 credits) in a variety of areas in astronomy and astrophysics, and are suitable as electives for science majors (item 5-b of the Faculty of Science requirements for undergraduate programs), including students in Co-operative Education programs.

Undergraduate Courses

201.0 Introduction to Astronomy

This survey course is intended for students who are not science majors and who have little background in science and mathematics. It will emphasize the scientific methods currently used to determine physical properties (such as distance, size, composition, age and origin) of astronomical objects. A survey of known constituents of our universe will include objects as near as the earth itself and as remote as the mysterious quasars, and objects as commonplace as the moon and as bizarre as neutron stars and black holes. Among the great themes of 20th century astronomy to be described will be the life cycles of stars, the nature of the Milky Way Galaxy, and the origin and fate of the universe. During the course students will also be able to gain practical observing experience and to make use of the Burke-Gaffney Observatory.

Classes 3 hrs. a week. 2 semesters.

202.0 Introductory Astronomy for Science Students

Prerequisite: Nova Scotia Grade 12 PHY 441 or PHY 011.0, and Nova Scotia Grade 12 MAT 441 or MAT 010.1(.2)/011.1(.2), or equivalents.

After a study of the celestial sphere, the motions of the earth and time measurement, the solar system will be investigated in some detail. Topics will include the moon, planets, asteroids, comets and the sun. Consideration of the properties of stars and stellar evolution will lead to a brief discussion of neutron stars, black holes and pulsars. Our Galaxy will be examined with respect to its size, rotation, and spiral structure. The nature and space distribution of external galaxies will be studied.

Classes 3 hrs. a week. 2 semesters.

306.1(.2) Observational Astronomy

Prerequisite: AST 202.0 or permission of instructor.

This course is concerned with astronomical instruments and techniques. Beginning with optical properties of telescopes, this course examines the design and use of modern astronomical instruments such as the photoelectric photometer, the spectrograph and the CCD camera. Students will have the opportunity to use the equipment in observing sessions, and gain practical experience in the acquisition and reduction techniques of astronomical data.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to AST 301.1(.2).

316.1(.2) Stellar Astronomy

Prerequisite: PHY 205.0 and AST 202.0, or permission of instructor.

This course describes some of the basic techniques used to study the stars. Topics covered include: aspects of the celestial sphere, spherical astronomy, stellar astrometry, photometry and spectroscopy, basic stellar parameters, star cluster H-R diagrams and observable features of stellar evolution, interstellar extinction and dynamics of star clusters.

Classes 3 hrs. and lab 1 hr. a week. 1 semester.

Note: No credit will be given for this course subsequent to AST 402.1(.2).

405.1(.2) Astrophysics I

Prerequisite: AST 202.0 and PHY 355.1(.2), or permission of instructor.

An introduction to radiative processes in astrophysics. Topics will include radiative transfer, absorption and emission processes, line and continuum formation, and stellar atmospheres.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to AST 302.1(.2).

416.1(.2) Astrophysics II

Prerequisite: AST 405.1(.2) or permission of instructor.

An introduction to the structure of stars and the interstellar medium. Topics will include the equations of stellar structure, stellar evolution, molecular clouds, H II regions, interstellar chemistry, and star formation.

Classes 3 hrs. a week. 1 semester.

435.1(.2) Data Analysis in Astronomy

Prerequisite: AST 306.1(.2) or permission of instructor.

The goal of this course is to instruct the student in the analysis of astronomical data. Following a general introduction to errors and data reduction, the bulk of the course will consist of the use of computers in data reduction. Student projects will include the analysis of images and spectral line maps.

Classes 3 hrs. a week. 1 semester.

445.1(.2) Solar System Astronomy

Prerequisite: PHY 205.0 and AST 202.0, or permission of instructor.

Topics covered include fundamental data for planets and satellites, orbital mechanics, rocks and minerals, age dating of rocks by radioactive decay, meteorites and tektites, comets, asteroids and remote sensing techniques, cosmogony and the early history of the solar system, planetary and satellite interiors, surfaces and atmospheres, and comparative planetology.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to AST 401.1(.2).

Graduate Courses

The 600-level courses are intended for graduate students in astronomy and are not normally taken by undergraduates. Interested undergraduate students should discuss their background with the Chairperson or the Undergraduate Coordinator before enrolling in these courses.

AST 1(2) Galactic Astronomy

This course describes the contents and structure of the Milky Way Galaxy. Topics covered include: historical highlights, reference frames and stellar astrometry, spectral classification, photometric systems, luminosity calibrations, clusters and associations, star counts and stellar density functions, the luminosity function, chemical composition variations in the Galaxy, solar motion, statistical and secular parallaxes, kinematic groups, galactic rotation and structure, spiral arms, and an introduction to galactic dynamics.

Classes 3 hrs. a week. 1 semester.

AST 1(2) The Interstellar Medium

Topics covered include: the phases of the interstellar medium, neutral clouds, ionized hydrogen regions, interstellar molecules, dust grains, shocks, gravitational collapse, bipolar outflows, and accretion disks.

Classes 3 hrs. a week. 1 semester.

AST 1(2) Techniques and Instruments in Astronomy I

A review of the celestial sphere and timekeeping systems begins this course, which deals primarily with the optical region of the spectrum. A discussion of radiation measurement will include the effects of the terrestrial atmosphere. An investigation of the properties of modern detectors leads to a summary of the observing and data reduction techniques associated with them. Assignments will include a variety of instruments currently used in the Department and Burke-Gaffney Observatory.

Classes 3 hrs. a week. 1 semester. Required observing sessions at the 40 cm telescope extend through second semester.

AST 1(2) Binary and Variable Stars

This course is devoted to the study of both binary stars and variable stars. Topics covered under binary stars include: fundamentals of orbital motion and the properties of binary star systems, analytical and practical techniques for studying visual, astrometric, spectroscopic, and eclipsing binaries, the mass-luminosity relation, and classification of close binaries by Roche-lobe filling. Topics covered under variable stars include: light curves and variable star classification, eclipsing variables, pulsating variables and pulsation theory, rotating variables, unique types, and the link between variability and stellar evolutionary stages.

Classes 3 hrs. a week. 1 semester.

AST 1(2) Selected Topics in Astronomy and Astrophysics

One or more selected specialty areas in astronomy will be examined in greater detail than is possible within the broader scope of other courses. Topics will be chosen by the Department and made available to interested students prior to registration.

Lectures 3 hrs. a week.

AST 1(2) Extragalactic Astronomy

Starting with a survey of the different galaxy classes, recent observations of galaxies will be reviewed with emphasis on how these observations are interpreted using concepts arising from studies of the Milky Way. The present content and possible evolutionary histories of the galaxy classes will be compared. The nature of galaxy clusters will be examined, and this will lead to a discussion of how observations of galaxies are employed to infer the large-scale properties of our universe.

Classes 3 hrs. a week. 1 semester.

AST 0 Thesis

Normally taken during the second year of enrollment in the Master of Science program. The research will be conducted under the supervision of a faculty member.

AST 1(2) Directed Readings in Current Literature

A topic of current interest in astronomy will be chosen in consultation with a faculty member. After a thorough study of recent work on the topic, a detailed written report with references will be submitted. Extensive use will be made of available research journals.

AST 1(2) Particle Astrophysics

An introduction to particle physics and its application to astrophysics. Topics will include concepts of the standard model and grand unification, the early universe, high-energy cosmic rays, neutrino astrophysics and inflation.

Classes 3 hrs. a week. 1 semester.

613.1(2) Graduate Gas Dynamics

This course introduces the student to the fundamentals of compressible fluid (gas) dynamics. Topics include the equations of ideal gas dynamics, the jump-shock conditions, the Riemann Problem, the formalism of characteristics, numerical techniques, and astrophysical applications.

Classes 3 hrs. a week. 1 semester.

614.1(2) Stellar Astrophysics I

An introduction to the theory of stellar atmospheres and interiors. Topics include: the basic equations of stellar structure, nuclear processes, radiative transfer theory, pre-main-sequence evolution, white dwarfs, neutron stars, and black holes.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to AST 603.1(.2).

615.1(2) Stellar Astrophysics II

An introduction to current topics in stellar astrophysics. Topics include: variable stars and stellar pulsation theory, solar seismology, the solar neutrino problem, globular cluster ages, the theory of stellar rotation, novae, and supernovae.

Classes 3 hrs. a week. 1 semester.

616.1(2) Techniques and Instruments in Astronomy II

This course complements AST 606.1(.2) by dealing primarily with wavelengths outside the optical spectral region. It begins with a summary of atmospheric effects across the spectrum. A discussion of astronomical telescopes and detectors will include descriptions of specific hardware being used to study electromagnetic radiation and other information from beyond the atmosphere. The techniques of radio interferometry will be investigated in detail.

Classes 3 hrs. a week. 1 semester.

Astrophysics (ASP)

Two Bachelor of Science programs are available to students wishing to study astronomy and astrophysics. These are the major program and honors program in astrophysics. Because astronomy is founded and depends heavily on physics, the astrophysics programs emphasize physics as well as astronomy.

The major program is designed for students who want to obtain a solid introduction to astronomy and physics but who do not plan on continuing to graduate school in astronomy. The honors program is designed for students who intend to continue their schooling in astronomy at the graduate level. Students in the major program must complete six (6.0) physics credits and three (3.0) astronomy credits, with those courses listed in the program being required courses. Students in the honors program must complete nine (9.0) physics credits and three (3.0) astronomy credits, with those courses listed in this program being required courses. Electives fill out both programs to the required twenty (20.0) credits. The astrophysics program demands a minimum grade of C in all physics and astronomy courses required for the degree. The program of study must be approved by the Chairperson or the Undergraduate Coordinator.

a. Astrophysics Major**Year 1**

PHY 205.0

AST 202.0

MAT 210.1(.2)/211.1(.2)

EGL 201.1(.2)/202.1(.2)

Science or humanities Elective (1.0)

Year 2

PHY 305.1(.2), 306.1(.2), 316.1(.2), 345.1(.2) and 355.1(.2)

One of AST 306.1(.2) or AST 316.1(.2)

MAT 310.1(.2)/311.1(.2)

Elective (1.0)

Year 3

PHY 425.1(.2) and 435.1(.2)

PHY 416.1(.2) if available

One of AST 405.1(.2) or AST 416.1(.2)

Electives (with above to total 5.0)

Year 4

PHY 416.1(.2) if not taken previously

1.0 PHY credit from 400-level courses not taken previously

1.0 AST credit from 400-level courses not taken previously

Electives (with above to total 5.0)

b. Honors Astrophysics Program**Year 1**

PHY 205.0

AST 202.0

MAT 210.1(.2)/211.1(.2)

EGL 201.1(.2)/202.1(.2)

Science or humanities Elective (1.0)

Year 2

PHY 305.1(.2), 306.1(.2), 316.1(.2), 345.1(.2) and 355.1(.2)

One of AST 306.1(.2) or AST 316.1(.2)

MAT 310.1(.2), 311.1(.2) and 320.1(.2)

Elective (0.5)

Year 3

PHY 405.1(.2), 425.1(.2), 435.1(.2), 436.1(.2) and 446.1(.2)

One of PHY 416.1(.2) or PHY 426.1(.2)

One of AST 405.1(.2) or AST 416.1(.2)

Electives (1.5)

Year 4

1.5 PHY credits from 400-level courses not taken previously

PHY 500.0

1.0 AST credit from 400-level courses not taken previously

Electives (1.5)

Physics (PHY)

Physics forms the foundation for all other sciences. Considered to be the most fundamental of the natural sciences, physics deals with the observation and modelling of phenomena on scales from the subatomic to the cosmological. In the broadest sense, physicists seek to enunciate physical laws and develop mathematical models of natural phenomena consistent with experimental evidence.

With their training in understanding complex phenomena, in applying analytical and computational methods, and especially in critically analyzing problems, students of physics are uniquely qualified to pursue careers or postgraduate studies in a wide variety of fields - particularly in a high-technology society where basic and applied science touch every aspect of human life. The aerospace, communications, energy and health care fields are all areas of employment for physics graduates at all degree levels.

The Department of Astronomy and Physics offers programs in physics designed to provide students with a thorough preparation in physics. Contingent on University and Faculty of Science degree requirements, three Bachelor of Science programs are available to students wishing to study physics: the general program (physics concentration), the major program, and the honors program. The major program is designed for students who want to obtain a solid introduction to physics but who do not plan to continue their studies in physics in a graduate program. The honors program is designed for students who do anticipate a continuation of their studies in physics at the graduate level. All students considering a degree program in physics must consult with the Chairperson or the Undergraduate Coordinator.

a. Physics Concentration**Year 1**

PHY 205.0

MAT 210.1(.2)/211.1(.2)

EGL 201.1(.2)/202.1(.2)

2.0 credits from science or humanities

Year 2 and 3

Any eight half-credit courses (4.0 credits) in physics (in accordance with science degree requirements and subject to prerequisites) from:

PHY 305.1(.2) PHY 306.1(.2)

PHY 316.1(.2) PHY 345.1(.2)

PHY 346.1(.2) PHY 355.1(.2)

PHY 405.1(.2) PHY 425.1(.2)

PHY 435.1(.2) PHY 445.1(.2)

PHY 446.1(.2) PHY 455.1(.2)

PHY 456.1(.2) PHY 465.1(.2)

Additional elective(s) from science and humanities to complete the program.

b. Physics Major**Year 1**

PHY 205.0

MAT 210.1(.2)/211.1(.2)

EGL 201.1(.2)/202.1(.2)

2.0 credits from science or humanities

Year 2

PHY 305.1(.2), 306.1(.2), 316.1(.2), 345.1(.2), 346.1(.2) and 355.1(.2)

MAT 310.1(.2), 311.1(.2) and 320.1(.2)

Elective (0.5)

Year 3

PHY 405.1(.2), 425.1(.2), 435.1(.2), 436.1(.2) and 445.1(.2)

One of PHY 416.1(.2) or PHY 426.1(.2)

2.0 credits from science or humanities

Year 4

PHY 455.1(.2) and 465.1(.2)

0.5 to 1.0 additional PHY credits from 400-level courses not taken previously

Electives (with above to total 5.0)

c. Honors Physics Program**Year 1**

PHY 205.0

MAT 210.1(.2)/211.1(.2)

EGL 201.1(.2)/202.1(.2)

2.0 credits from science or humanities

Year 2

PHY 305.1(.2), 306.1(.2), 316.1(.2), 345.1(.2), 346.1(.2) and 355.1(.2)

MAT 310.1(.2), 311.1(.2) and 320.1(.2)

Elective (0.5)

Year 3

PHY 405.1(.2), 425.1(.2), 435.1(.2), 436.1(.2), 445.1(.2) and 446.1(.2)

One of PHY 416.1(.2) or PHY 426.1(.2)

1.5 credits from science or humanities

Year 4

PHY 455.1(.2), 456.1(.2), 465.1(.2) and 466.1(.2)

PHY 500.0

2.0 credits from science or humanities

Undergraduate Courses**011.0 General Physics**

Introduction to mechanics, sound, heat, electricity and light.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

Note: This is a preparatory course. It does not carry a credit value; therefore it cannot be counted in the number of credits required for a degree, diploma or certificate.

205.0 University Physics

Prerequisite: Nova Scotia Grade 12 PHY 441 or PHY 011.0 or PHY 230.0 or equivalent; MAT 190.1(.2)/210.1(.2) or MAT 210.1(.2)/211.1(.2) (may be taken concurrently); or permission of instructor.

Topics will include mechanics, heat, sound, light, electricity, radioactivity and nuclear energy.

Classes 3 hrs. and lab/tutorial 3 hrs. a week. 2 semesters.

Note: No credit will be given for this course subsequent to PHY 221.0.

230.0 Medical Physics

Prerequisite: Nova Scotia Grade 12 MAT 441 or MAT 010.1(.2)/011.1(.2) or equivalent, or permission of instructor.

This algebra-based introductory physics course is designed for pre-medical, pre-dental and other life science students. Topics will include: mechanics, temperature and heat, kinetic theory of gases, optics, electricity, radio-activity, electronics, the nucleus. Principles will be applied to such areas as bones, lungs and breathing, eye and vision, diagnostic use of x-rays and radio-therapy.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

305.1(.2) Newtonian Mechanics

Prerequisite: PHY 205.0, MAT 210.1(.2)/211.1(.2), and MAT 310.1(.2)/311.1(.2) (may be taken concurrently).

An introduction to the fundamental concepts behind our understanding of dynamical systems. Topics that will be covered include vectors, work and potential energy, stability, central force motion and orbits, rigid bodies in two dimensions.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 331.1(.2).

425.1(2) Waves and Optics

Prerequisite: PHY 305.1(.2) and PHY 355.1(.2).

Introduction to the concepts behind the production, propagation and manipulation of waves including light. Topics that will be discussed include: the simple harmonic oscillator, the wave equation, wave velocity and propagation, wave packets. These will lead to a discussion of the techniques of geometrical and physical optics.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 305.1(.2).

426.1(2) Thermodynamics

Prerequisite: PHY 205.0 and MAT 210.1(.2)/211.1(.2).

The laws of thermodynamics describe the behavior of the macroscopic world around us. This course will introduce the concepts behind this description of bulk systems, including temperature, energy, entropy, laws of thermodynamics, Maxwell relations, and phase transitions.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 305.1(.2).

427.1(2) Experimental Physics I

Prerequisite: PHY 205.0, PHY 305.1(.2) (may be taken concurrently), and PHY 355.1(.2) (may be taken concurrently).

Concepts in laboratory practice, technique and analysis applied to practical experiments in mechanics, electro- and magnetostatics, and heat theory.

Seminars and lab 6 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 305.1(.2).

428.1(2) Experimental Physics II

Prerequisite: PHY 345.1(.2), PHY 306.1(.2) (may be taken concurrently), and PHY 316.1(.2) (may be taken concurrently).

Concepts in laboratory practice, technique and analysis applied to practical experiments in optics, waves and thermodynamics.

Seminars and lab 6 hrs. a week. 1 semester.

429.1(2) Electricity and Magnetism

Prerequisite: PHY 205.0 and MAT 210.1(.2)/211.1(.2).

Students will be introduced to basic concepts describing electric and magnetic fields, including Gauss' law, Ampère's law, Faraday's law, conductors and insulators, resistance, inductance, capacitance in AC circuits.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 305.1(.2).

430.1(2) Classical Mechanics

Prerequisite: PHY 305.1(.2), MAT 310.1(.2)/311.1(.2), and MAT 320.1(.2), or permission of instructor.

This course will introduce the generalized Lagrangian and Hamiltonian formulations of dynamics and apply them to studies of central force problems, rigid bodies in three dimensions, the motion of tops and the effect of constraints.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 305.1(.2).

431.1(2) Statistical Mechanics

Prerequisite: PHY 316.1(.2).

The statistical study of large systems of particles. This course will introduce the concepts of the ensemble, canonical ensembles, grand canonical ensembles, distribution functions, kinetic theory, entropy, and the laws of thermodynamics.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 305.1(.2).

425.1(2) Modern Physics I

Prerequisite: PHY 305.1(.2) and PHY 435.1(.2) (may be taken concurrently).

A discussion of the foundations of quantum mechanics, including the quantization of light, the Bohr atom, wave mechanics, the Schrodinger equation.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 471.1(.2).

426.1(2) Modern Physics II

Prerequisite: PHY 405.1(.2) and PHY 435.1(.2).

The tools and techniques of modern mechanics. Topics will include special relativity, non-linear dynamics, chaos.

Classes 3 hrs. a week. 1 semester.

435.1(2) Techniques in Theoretical Physics I

Prerequisite: PHY 205.0 and MAT 310.1(.2)/311.1(.2).

A discussion of the techniques used in theoretical physics to describe complex phenomena, including differential equations and special functions, complex analysis, Cauchy's theorem and the calculus of residues.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 451.1(.2).

436.1(2) Techniques in Theoretical Physics II

Prerequisite: PHY 435.1(.2).

A discussion of more advanced methods in theoretical physics, including the application of statistical methods, Green's functions, integral equations, transform theory, numerical analysis.

Classes 3 hrs. a week. 1 semester.

445.1(2) Advanced Laboratory I

Prerequisite: PHY 346.1(.2).

Laboratory experience in advanced topics of physics. Students will be responsible for setting up, performing and documenting the experiments.

Lab 6 hrs. a week. 1 semester.

446.1(2) Advanced Laboratory II

Prerequisite: PHY 445.1(.2) or permission of instructor.

Advanced topics in physics and astrophysics in the laboratory. Students will be responsible for setting up and performing the experiments, analyzing data, and writing computer programs. There will be a group project for this course, to be conceived and built by the students from equipment available in the lab.

Lab 6 hrs. a week. 1 semester.

455.1(2) Electromagnetic Theory I

Prerequisite: PHY 355.1(.2) and PHY 436.1(.2), or permission of instructor.

This course introduces the equations for electric and magnetic fields in free space and in media. Techniques studied include the Laplace and Poisson equations, Maxwell's equations, and an introduction to electrodynamics in free space.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 431.1(.2).

456.1(2) Electromagnetic Theory II

Prerequisite: PHY 455.1(.2).

An advanced discussion of electrodynamics in dielectrics and conductors, behavior of electromagnetic waves at boundaries, dispersion, radiation and scattering.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to PHY 432.1(.2).

465.1(.2) Quantum Mechanics I

Prerequisite: PHY 425.1(.2) and PHY 436.1(.2), or permission of instructor.

The nature and description of quantum systems. The Heisenberg and Schroedinger representations, Dirac notation, oscillators, angular momentum, the hydrogen atom.

Classes 3 hrs. a week. 1 semester.

466.1(.2) Quantum Mechanics II

Prerequisite: PHY 465.1(.2).

Techniques in quantum mechanics, including the WKB approximation, time-independent and time-dependent perturbation theory, radiation, scattering, applications to atomic and nuclear physics.

Classes 3 hrs. a week. 1 semester.

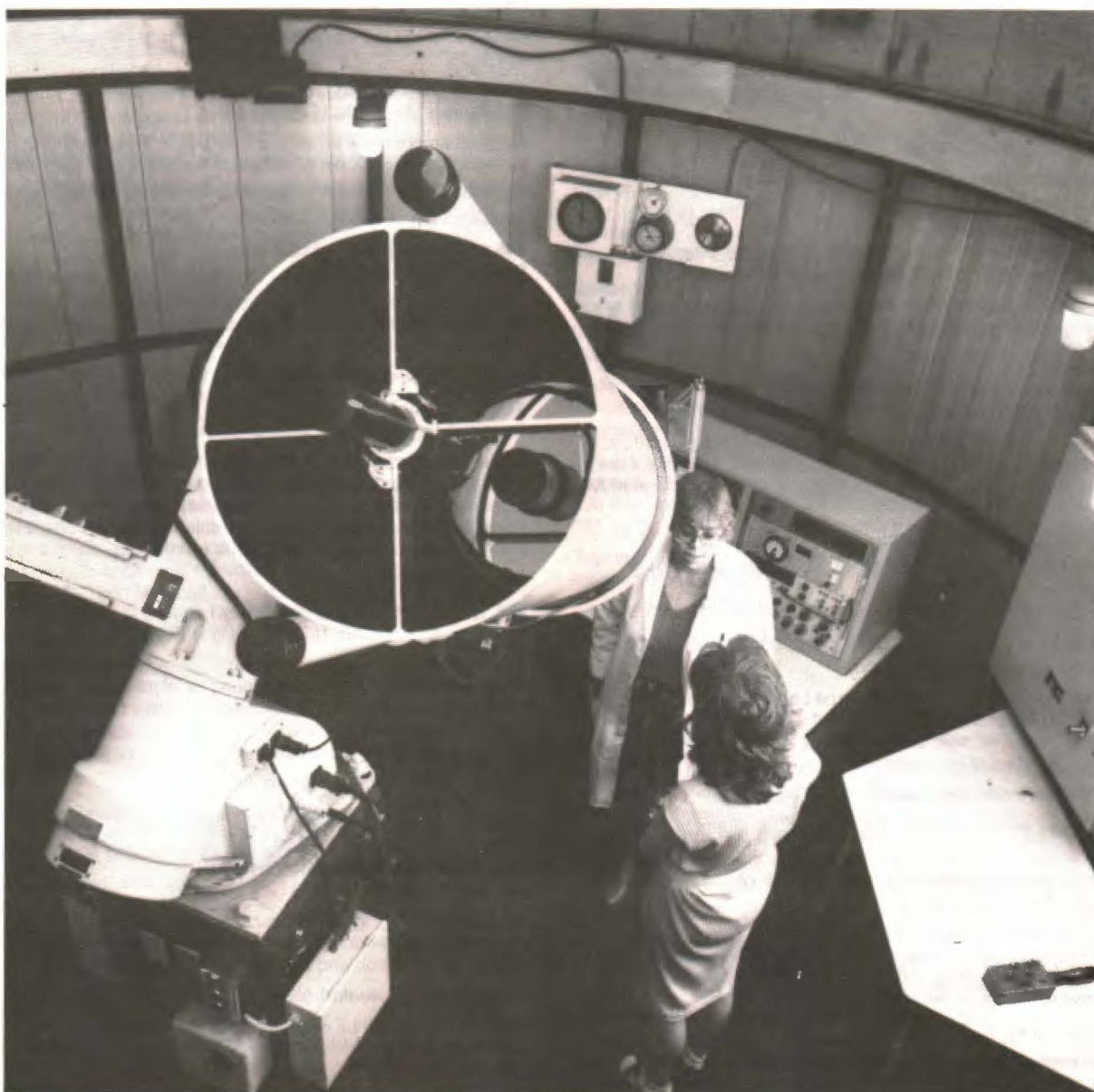
Note: No credit will be given for this course subsequent to PHY 545.1(.2).

500.0 Research Thesis

Prerequisite: honors standing.

Research project carried out by the student under the supervision of a member of the Department. The project should be in the area of astrophysics for students in the honors astrophysics program. The student will submit a thesis and defend it orally.

Directed study 6 hrs. a week. 2 semesters.



Working in the Observatory

Atlantic Canada Studies (ACS)

Committee on Atlantic Canada Studies

Arseneau, Coordinator	Political Science
Barrett	Sociology
Dyme	English
Chamard	Management
Charles	Finance and Management Science
Christiansen-Ruffman	Biology
Cone	Biology
Donnelly	Sociology
Davis	Anthropology
Day	Geography
Rikeid	French
Harry	English
Howell	History
Jesekamp	History
MacDonald	Economics
MacKinnon	English
McCalla	Geography
McGee	Anthropology
Millward	Geography
Morrison	History
Nauls	Political Science
Perrier	Sociology
Reid	History
Robinson	Geography
Seaman	English
Twomey	History
Vallmeyer	Sociology
Waldron	Geology
Whalen	English
Wiles	Biology
T.E.A.	graduate student representative
T.E.A.	undergraduate student representative

Atlantic Canada Studies is an interdisciplinary major, minor, and honors option in the Arts Faculty which has developed out of an increasing demand by students, faculty and the community generally, for a more organized study of this region.

Students who complete a major, minor, or honors in Atlantic Canada Studies will have helped to prepare themselves for a fuller and more meaningful participation in the life of Atlantic Canada, and will have acquired a useful background for careers in teaching, trade and industry, and the various bureaus of the provincial and federal civil services. Their attention is particularly drawn to the advantages, from a career point of view, of taking Atlantic Canada Studies as part of a double major or combined honors.

Students are required to choose their courses in consultation with a member of the Atlantic Canada Studies Committee, and are strongly urged to select one of its members to advise them for the duration of the program, and to provide the necessary liaison with the Committee. The following are the regulations for the major, minor, and honors programs. Details concerning the Master of Arts in Atlantic Canada Studies degree are found in Section 3 of this Calendar.

Majors

To complete a major concentration in Atlantic Canada Studies, a student must meet the usual University requirements for the Bachelor of Arts degree, and in particular, obtain eight credits (8.0) from the courses listed below. At least four (4.0) of the eight credits (8.0) must be at the 300 level or above. Students are required to select courses in accordance with the following criteria:

1. The courses must include at least one credit (1.0) from each of three of Groups A, B, C, D and E.
2. The courses must include at least one credit (1.0) from each of three different academic disciplines. Interdisciplinary ACS courses do not count as a discipline for this purpose.
3. ACS 400.0 must be one of the courses selected.
4. No more than three credits (3.0) may be selected from Group E.
5. No student may include both ACS 310.0 and BIO 207.0 among the courses selected.
6. It is the responsibility of the student to ensure that all prerequisites have been fulfilled for the courses chosen.

Minors

A minor in Atlantic Canada Studies consists of four credits (4.0) chosen from the courses listed below and completed with a quality point average of at least 2.00. At least two credits (2.0) must be at the 300 level or above, and the courses selected must include ACS 400.0. The courses must also include one credit (1.0) from each of three different academic disciplines, and no more than two credits (2.0) may be selected from Group E.

Honors

To complete an honors program in Atlantic Canada Studies, a student must meet the usual University requirements for the Bachelor of Arts (Honors) degree, and in particular, obtain ten credits (10.0) from the courses listed below. At least eight (8.0) of the ten credits (10.0) must be at the 300 level or above. Students are required to select courses in accordance with the following criteria:

1. The courses must include at least one credit (1.0) from each of four of Groups A, B, C, D, and E.
2. The courses must include at least one credit (1.0) from each of three different academic disciplines. Interdisciplinary ACS courses do not count as a discipline for this purpose.
3. ACS 500.0 must be one of the courses selected.
4. No more than three credits (3.0) may be selected from Group E.
5. No student may include both ACS 310.0 and BIO 207.0 among the courses selected.
6. It is the responsibility of the student to ensure that all prerequisites have been fulfilled for the courses chosen.

Group A: Interdisciplinary Courses in Atlantic Canada Studies

ACS 300.0; ACS 301.1(.2); ACS 302.1(.2); ACS 303.1(.2); ACS 310.0; ACS 400.0; ACS 401.1(.2) to ACS 405.1(.2); ACS 500.0.

Group B: Culture and History

ANT 322.0; EGL 312.1(.2); EGL 380.0; IRS 307.0; FRE 305.1(.2); FRE 405.1(.2); HIS 320.0; HIS 340.0; HIS 344.0; HIS 346.1(.2); HIS 372.1(.2); HIS 373.1(.2); HIS 535.0; HIS 560.0.

Group C: Social and Political Economy

ECO 324.1(.2); ECO 325.1(.2); SOC 320.0; SOC 327.0; SOC 332.0; SOC 420.0; SOC 453.0; SOC 468.1(.2).

Group D: Ecology and Environment

BIO 207.0; ACS 361.1(.2); GPY 304.1(.2); GPY 340.1(.2); GEO 204.0; GEO 205.0; SOC 310.1(.2).

Group E: Cognate Courses

ANT 221.1(.2); ANT 222.1(.2); ANT 321.0; ANT 371.1(.2); ANT 372.1(.2); BIO 103.0; BIO 310.0; BIO 405.0; BIO 510.0; ECO 306.1(.2); ECO 310.1(.2); ECO 315.1(.2); ECO 349.1(.2); ECO 406.1(.2); ECO 430.1(.2); EGL 335.0; EGL 371.1(.2); EGL 372.1(.2); EGL 375.1(.2); EGL 376.1(.2); EGL 432.0; EGL 475.0; FRE 412.1(.2); FRE 419.0; FRE 425.0; FRE 440.1(.2); GPY 311.1(.2); GPY 319.0; GPY 331.1(.2); GPY 354.1(.2); GPY 364.1(.2); GPY 423.1(.2); HIS 231.0; HIS 232.0; HIS 240.0; HIS 311.0; HIS 319.0; HIS 329.0; HIS 332.0; HIS 333.0; HIS 347.0; HIS 349.0; HIS 361.1(.2); HIS 362.1(.2); IRS 308.0; POL 304.0; POL 309.0; POL 310.0; POL 315.0; POL 317.0; POL 330.0; POL 440.0; POL 447.1(.2); POL 450.1(.2); POL 455.0; POL 551.0; PSY 418.1(.2); PSY 419.1(.2); REL 346.1(.2); REL 347.1(.2); SOC 306.0; SOC 321.0; SOC 333.0; SOC 340.0; SOC 391.0; SOC 400.1(.2); SOC 405.0; SOC 425.0; SOC 448.0; SOC 480.0; WMS 349.1(.2).

300.0 The Culture of Atlantic Canada

This course provides an introduction to the cultural traditions and institutions of the various regions and ethnic groups of the three Maritime Provinces and Newfoundland. Lectures will cover a wide variety of architectural, artistic, ecclesiastical, educational, ethnic, and linguistic topics. Students will engage in both individual and group projects and be required to write a final examination.

Note: While the same course description is applied to one-semester courses designated I and II, each course is in fact self-contained in content and entirely different each time it is offered. A student does not need to have passed I as a prerequisite to enroll in II.

301.1(2) Selected Topics in Atlantic Canada Studies I

This semester course will provide the student with an opportunity to take courses on specific Atlantic Canada topics which do not fit in with the standard offerings of other departments of the University.

302.1(2) Selected Topics in Atlantic Canada Studies II

This semester course will provide the student with an opportunity to take courses on specific Atlantic Canada topics which do not fit in with the standard offerings of other departments of the University.

303.1(2) Higher Education in Atlantic Canada

A study of the relationship between the material basis and political economy of the Atlantic fisheries since 1945. Stress will be placed on the scientific facts underlying the fisheries, and in particular, the qualities and quantities in the marine ecosystem that support them. A detailed study will also be made on the methods of fisheries science which are the basis of fish stock assessments by government scientists. Roughly the last third of the course will examine the effects on the livelihood of fishermen, of government policies respecting the fisheries, and the regional, national and international political forces which are behind federal government fisheries regulations.

310.0 The Atlantic Fisheries

A study of the relationship between the material basis and political economy of the Atlantic fisheries since 1945. Stress will be placed on the scientific facts underlying the fisheries, and in particular, the qualities and quantities in the marine ecosystem that support them. A detailed study will also be made on the methods of fisheries science which are the basis of fish stock assessments by government scientists. Roughly the last third of the course will examine the effects on the livelihood of fishermen, of government policies respecting the fisheries, and the regional, national and international political forces which are behind federal government fisheries regulations.

400.0 Atlantic Canada Seminar

Prerequisite: student must be a Year 3 ACS major.

This course, intended for majors in Atlantic Canada Studies, will provide an opportunity for students in the program to integrate their knowledge of the region in an interdisciplinary fashion. Drawing upon the expertise of a number of guest speakers familiar with various aspects of Atlantic Provinces life, the course will deal with such topics as the Atlantic fishery, agriculture, industry and labour, business enterprise, regional protest, and cultural ethnicity. Students will be afforded an opportunity to use the vast quantity of primary source material at the Public Archives of Nova Scotia and other local repositories.

401.1(2) to 405.1(2) Directed Readings

Prerequisite: permission of ACS Coordinator.

These courses provide opportunities to study a particular subject in detail. They will normally require a considerable amount of independent, though supervised, study.

500.0 Honors Seminar

Prerequisite: enrollment in ACS honors program.

This course will provide an opportunity for honors students to integrate their knowledge in an interdisciplinary fashion.

Master of Arts in Atlantic Canada Studies**620.0 Culture of Atlantic Canada**

Prerequisite: enrollment in the Master of Arts in ACS or permission of ACS Coordinator.

The course will deal with the historical, geographical and linguistic aspects of the culture of the Atlantic Region. This will include the tracing of the development of distinctive cultures within the region. The development of various literary forms within the region from folk-tale and folk-song to more sophisticated written literary materials will be emphasized. The course will also explore regional and federal policies.

630.0 Seminar on Atlantic Canada Ecology and Resources

Prerequisite: enrollment in the Master of Arts in ACS or permission of ACS Coordinator.

This seminar looks at the changing ways nature has been viewed and transformed in the Atlantic Region before and after European settlement. Topics covered include Indians and the land, patterns of animal extinction, Natural Theology and Darwinism, the conservation movement, "technological flaw", and the ways in which business, politicians and ordinary people have dealt with environmental concerns. A central question asked will be the relevance of ecological insights in an industrialized, yet underdeveloped, region.

640.0 Atlantic Canada Political Economy Seminar

Prerequisite: enrollment in the Master of Arts in ACS or permission of ACS Coordinator.

This course will involve an interdisciplinary perspective on the region's economic, political and social institutions and the problems associated with them. On the basis of both a historical and a structural analysis of the region's political economy, the seminars will focus on a broad range of problems including uneven industrial and urban development, rural decline, regional disparity, economic concentration and corporate power, the role of government in economic and social development, industrial relations and social conflict, resource extraction and the single-industry community.

650.0 Directed Reading

Prerequisite: enrollment in the Master of Arts in ACS or permission of ACS Coordinator.

Reading courses will be organized by the instructor(s) involved. In general, each course will centre on a specific theme, and the students will be expected, through their reading, to be familiar with all aspects of the chosen area. Examinations and/or papers will be required at the end of each course.

660.0 History and Society: The Atlantic Provinces Seminar

Prerequisite: graduate standing or permission of instructor.

This course, intended for master's students in Atlantic Canada Studies and honors and master's students in history, addresses the nature of historical inquiry into issues relating to the social and economic history of the Atlantic region. Topics to be covered will include regional culture, gender and race, the family, processes of development and underdevelopment, scientism and professionalization, health, recreation and sport. Students who have completed ACS 660.0 are not eligible to enroll in HIS 560.0.

Seminar 3 hrs. a week. 2 semesters.

690.0 Thesis Research

Prerequisite: enrollment in the Master of Arts in ACS or permission of ACS Coordinator.

Students will engage in the research for and writing of a thesis under supervision of a graduate committee. Credit for the course will be determined when the student satisfies the thesis advisor that thesis research and all other methodological and disciplinary preparation for the successful handling of the thesis topic have been completed. Supervisors may require a demonstration of language competence or extra course work as preparation for the treatment of certain thesis topics.

Biology (BIO)

Chairperson, Assistant Professor T. Rand
Professors B. Kapoor, D. Richardson, M. Wiles
Associate Professors D. Cone, D. Strongman
Assistant Professor M. White

The Biology Department offers programs to fulfil the requirements of the following degrees:

1. a general degree of Bachelor of Science with a concentration in biology,
2. a degree of Bachelor of Science with a major in biology and,
3. a degree of Bachelor of Science with honors in biology.

In addition to the traditional program of study, the Department offers a Co-operative Education program in Biology (COEB). A description of this can be found below in this section of the Calendar.

The Department also prepares students for the professional studies in medicine and dentistry.

The core program for biology majors consists of BIO 200.0 and BIO 307.1(2)/308.1(2).

Students intending to take an honors degree in biology should consult the Chairperson or a member of the Department before completing registration.

Students completing a concentration in biology should be able to understand most of the disciplines of the subject and be capable of teaching or doing technical work in biological, paramedical, or health science fields after appropriate on-job training. Students finishing a major in biology should be capable of undertaking graduate level work in biology either after a further year of honors work or after a qualifying year in a graduate program. In the major program more emphasis is placed on the scientific aspects of education and training, while a concentration in biology is aimed at providing a broad general education in arts and sciences.

Note: Students who fail the laboratory component of a course will fail the course.

The following schemes are recommended by the Department for biology students doing the general science degree; the degree with a major or honors; or the Co-operative Education degree.

Scheme A: General Science Degree with Biology Concentration

Year 1

1. EGL 201.1(2)/202.1(2)
2. MAT 210.1(2)/211.1(2) or CSC 226.1(2)/227.1(2)
3. a credit in the humanities (1.0)
4. BIO 200.0
5. CHE 202.0

Year 2

1. 2.0 credits from the following:
 BIO 302.0 BIO 309.0 BIO 317.0
 BIO 305.0 BIO 310.0 BIO 319.0
 BIO 307.1(2) & 308.1(2)
2. a related science credit (1.0)
3. a related science credit (1.0)
4. a non-biology elective (1.0)

Year 3

1. 1.0 credit from the following:
 BIO 302.0 BIO 309.0 BIO 317.0
 BIO 305.0 BIO 310.0 BIO 319.0
 BIO 307.1(2) & 308.1(2)
2. 1.0 credit from the following:
 BIO 401.1(2) & 403.1(2)
 BIO 405.0
 BIO 407.1(2) or 411.1(2) plus BIO 408.1(2), 409.1(2), or 419.1(2)
 BIO 413.1(2) & 414.1(2)
 BIO 416.1(2) & 417.1(2)
3. a non-biology elective (1.0)
4. a non-biology elective (1.0)
5. a non-biology elective (1.0)

Scheme B: Science Degree with a Major in Biology

Year 1

1. EGL 201.1(2)/202.1(2)
2. MAT 210.1(2)/211.1(2) or CSC 226.1(2)/227.1(2)

3. a credit in the humanities (1.0)
4. BIO 200.0
5. CHE 202.0

Year 2

1. BIO 307.1(2) & 308.1(2)
2. 2.0 credits from the following:
 BIO 302.0 BIO 309.0 BIO 317.0
 BIO 305.0 BIO 310.0 BIO 319.0
3. a related science credit (1.0)
4. a non-biology elective (1.0)

Year 3

1. 3.0 credits from the following:
 BIO 302.0 BIO 319.0 BIO 407.1(2) or 411.1(2)
 plus
 BIO 305.0 BIO 320.0 BIO 408.1(2), 409.1(2),
 or 419.1(2)
 BIO 309.0 BIO 401.1(2) & 414.1(2)
 & 403.1(2)
 BIO 310.0 BIO 405.0 BIO 413.1(2) & 414.1(2)
 BIO 317.0 BIO 416.1(2) & 417.1(2)
2. a related science credit (1.0)
3. a biology or non-biology elective (1.0)
4. a non-biology elective (1.0)

Year 4

Please see information pertaining to the four year degree program outlined in the Faculty of Science academic regulations in Section 3 of this Calendar.

Scheme C: Science Degree with Honors in Biology

Year 4: Honors Year

Students must satisfy the requirement for the major degree program as outlined in Scheme B, and in the honors year, take the following five credits (5.0). Students will consult with their honors supervisor for the selection of courses.

1. 1.0 credit from the following:
 BIO 401.1(2) & 419.1(2) BIO 407.1(2) & 409.1(2)
 BIO 403.1(2) & 419.1(2) BIO 411.1(2) & 419.1(2)
 BIO 405.0 BIO 413.1(2) & 414.1(2)
 BIO 407.1(2) & 408.1(2) BIO 416.1(2) & 417.1(2)
2. BIO 549.0
3. 2.0 credits from the following:
 BIO 501.0 BIO 552.0 BIO 554.0
 BIO 510.0 BIO 553.0 BIO 555.0
 BIO 550.0
4. BIO 590.0

Note: In any biology course, the instructor may decide to substitute a one-hour seminar discussion period for one of the lectures.

Honors Program with a Combined Major in Biology and Chemistry

A total of 14.0 credits are required with a minimum of 6.0 credits in each major subject.

Year 1

1. CHE 201.0 or 202.0
2. BIO 200.0
3. a science or arts elective (1.0)
4. MAT 210.1(2) & 211.1(2)
5. EGL 201.1(2) & 202.1(2)

Year 2

1. BIO 307.1(2) & 308.1(2)
2. BIO 3XX level, other than above
3. CHE 344.1(2) or 346.1(2)
4. CHE 312.1(2)/313.1(2); 322.1(2)/323.1(2); or 332.1(2)/333.1(2)
5. humanities credits (1.5)

Year 3

1. BIO 4XX level
2. BIO 4XX level
3. CHE 312.1(2)/313.1(2); 322.1(2)/323.1(2); or 332.1(2)/333.1(2)
4. a credit in chemistry (1.0)
5. a science elective (1.0)

Year 4 (Honors Biology and Chemistry)

- CHE 500.0 or BIO 590.0
- BIO 549.0

Plus sufficient chemistry and biology credits to meet the 14.0 credit requirement

Scheme D: Co-operative Education in Biology (COEB)

The Co-operative Education in Biology program gives students the opportunity to integrate work experience with academic studies so that classroom learning is reinforced and additional skills are learned in a work environment. Under this scheme a student can earn either a Bachelor of Science in Biology (General: Co-operative Education) or Bachelor of Science in Biology (Honors: Co-operative Education) degree.

Note: Students are required to obtain the precise details of their program requirements in Biology at the time when they are officially admitted to the Co-operative Education program.

Admission is by application. Some students may be interviewed. Decisions will be made based on grades, motivation, overall suitability of the student and the needs of the employer.

To remain in the program the student must obtain a minimum grade of B in all biology courses and a cumulative quality point average of at least 2.50. Satisfactory work term reports (written reports that are graded) and positive employer assessments are also required for continuance in the Co-op program. Students who fail to meet any of these requirements may be required to withdraw from the Co-op program. Such students may be permitted to transfer into the corresponding major or honors program.

Details and regulations on the Faculty of Science Co-operative Education program are found in Section 3 of this Calendar.

Recommended Course Schemes:**AT 3&4**

- a humanities elective
- MAT 210.1(.2)/211.1(.2) or CSC 226.1(.2)/227.1(.2)
- a science elective
- BIO 200.0
- CHE 202.0

Option 1**AT 5&6**

- BIO 307.1(.2) and 308.1(.2)
- two 300-level BIO courses
- a science elective
- a non-biology elective

AT 7 (One Semester)

- three of BIO 401.1(.2), 407.1(.2), 411.1(.2), 413.1(.2), 416.1(.2), 418.1(.2)
- a one-semester science elective
- a one-semester biology or non-biology elective
- a non-biology elective

AT 8 (One Semester)

- two of BIO 403.1(.2), 408.1(.2), 447.1(.2), 448.1(.2)
- a one-semester science elective
- a one-semester science elective
- a one-semester biology or non-biology elective

The recommended honors scheme would be the same as above with the addition of the required honors courses and thesis in the honors year.

011.0 Introduction to Biological Science

This course examines the physical, chemical and biological bases of the activities of living organisms and emphasizes the modern approaches to biological sciences through consideration of the following: ecology, life history, behavior, physiology, cytology, heredity and molecular biology.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

Note: This is a preparatory course. It does not carry a credit value; therefore it cannot be counted in the number of credits required for a degree, diploma or certificate.

103.0 Biology, Environment and Man (for non-science students)

An introduction to the scope and principles of modern biological science. Wherever possible, examples explaining these principles be drawn from familiar, everyday events. The importance of biology in today's world will be discussed with particular emphasis on the problems associated with degradation of the environment and with human ecology. This course will not include laboratory work, but rather two lecture hours per week, and discussion sessions averaging one hour per week where demonstrations will sometimes be presented.

Note: Normally this course is restricted to non-science students for whom it constitutes a science elective. However, should a student wish to change to a science degree after taking the course, credit would be granted for the course as an arts elective.

Classes 3 hrs. a week. 2 semesters.

200.0 Principles of Biology

Prerequisite: Nova Scotia Grade 12 BIO 441 or BIO 011.0 or equivalent.

An in-depth study of the principles and organization of life with respect to various levels of integration. Emphasis in the laboratory work will be on experimental and precise observational techniques.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

207.0 The Atlantic Fisheries

Prerequisite: permission of instructor.

A study of the relationship between the biology and political economy of the Atlantic fisheries since 1945. Stress will be placed on the scientific facts underlying the fisheries, and in particular, the quality and quantities in the marine ecosystem that support them. A detailed study will also be made on the methods of fisheries science which are the basis of fish stock assessments by government scientists. Roughly the last third of the course will examine the effects on the livelihood of fishermen, of government policies respecting the fisheries, and the regional, national and international political forces which are behind federal government fisheries regulations.

Classes 3 hrs. a week. 2 semesters.

Note: This course cannot be used to satisfy the Bachelor of Science requirements 4-a, 4-b, 5-a, or 5-b. It also cannot be used to satisfy requirement 3-b of the Faculty of Arts.

249.1(.2) Introduction to the Marine Sciences

Prerequisite: Nova Scotia Grade 12 BIO 441 or BIO 011.0 or equivalent.

A three-week summer course organized by, and offered at, the Huntsman Marine Laboratory, St. Andrews, New Brunswick, during July. The course is an introduction to the principles and methods of marine science with an emphasis on field studies. Admission is by application. Students are expected to defray their own travel costs to and from the Laboratory.

36 hrs. including lab and field work during 1 summer session.

302.0 Cytology

Prerequisite: CHE 202.0 and BIO 200.0.

Structure and function of the cell organelles, cell reproduction, meiosis, reproductive cytology, architecture of the chromosome, function of the chromosomes, chromosomal rearrangements, polyploidy, sex-chromosomes, karyotype evolution, cytology in relation to taxonomy.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

305.0 General Physiology

Prerequisite: BIO 200.0, and CHE 202.0, 341.0 or 343.0 are suggested; or permission of Chairperson.

An introduction to the essential aspects of cellular physiology and a discussion of the physiology of the major organ systems of the vertebrate body. The topics discussed include: circulation, respiration, digestion, nutrition, metabolism, muscles, nervous system and endocrine system.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

307.1(.2) Genetics

Prerequisite: BIO 200.0, and CHE 202.0.

A study of the principles of inheritance in plants and animals by consideration of the genetic code, protein synthesis, mutations, polyploidy and Mendel's Laws.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

31.1(2) Biostatistics

Prerequisite: BIO 200.0 and MAT 201.1(2)/211.1(2).

Introduction to the principles and methods of analyzing and using quantitative data in the biological sciences. The emphasis will be on practical applications of statistics in biology rather than on statistical theory. Material covered includes graphical presentation of data, interpretation of data, handling of data. Descriptive statistics, distributions, regressions, correlation, analysis of variance, probability theory, comparisons of sets of data and sampling methods will be included.

Classes 3 hrs. and calculator 3 hrs. a week. 1 semester.

39.0 Botany of Domesticated Plants

Prerequisite: BIO 200.0.

Introduction to the study of economically important plants, their origin, domestication, botany, cultivation, harvesting, uses, diseases, breeding and their role in modern world economy. Plants and plant products of industrial importance, medicinal plants, food plants and food adjuncts will be treated in detail.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

39.0 Ecology

Prerequisite: BIO 200.0.

Study of the fundamental concepts and principles of modern ecology, consideration of physiological ecology, population ecology, and community ecology. A brief treatment of energy flow, biogeochemical cycles, applied ecology, conservation and management. Renewable and nonrenewable natural resources; the earth's biosphere as a dynamic, balanced system.

Classes 3 hrs. and lab or field 3 hrs. a week. 2 semesters.

39.0 Evolutionary Biology

Prerequisite: BIO 200.0, 307.1(2), and 308.1(2) (or concurrently).

Study of the history of the concept of evolution, the process whereby present species came into being, the mechanisms operating in nature, the factors affecting evolution and the final result as we witness it. Main areas of study are population genetics, history of the earth, fossil records and the evolution of man.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

39.0 Diversity of Non-Vertebrate Animals

Prerequisite: BIO 200.0.

Systematic study of non-vertebrate animals, their taxonomy, functional morphology, and behavior. Laboratory exercises provide student with the opportunity to experiment with certain living animals and to dissect and examine a variety of preserved specimens.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

39.0 Functional Morphology of Vertebrate Animals

Prerequisite: BIO 200.0.

Comprehensive study of functional morphology of the vertebrates, with consideration of structural adaptations for particular life styles. Laboratory instruction involves dissection of representative animals and the construction of physical models.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

41.1(2) Morphology of Vascular Plants

Prerequisite: BIO 200.0.

Structure, development and evolution of major taxa of vascular plants: pteridophytes, gymnosperms and flowering plants, both extinct and extant.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

43.1(2) Plant Taxonomy

Prerequisite: BIO 200.0.

Introduction to the principles of plant variation, origin, distribution, evolution and classification; major emphasis will be to identify and classify vascular plants of Nova Scotia.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

45.0 Biology of Fishes

Prerequisite: BIO 200.0 and 308.1(2).

Study of fishes, their classification, growth and development, ways of life and management. The laboratory portion of the course familiarizes students with representatives of world taxa and the study of fishes in Nova Scotia.

Classes 3 hrs. and lab or fieldwork 3 hrs. a week. 2 semesters.

407.1(2) Histological Techniques

Prerequisite: BIO 200.0 and Nova Scotia Grade 12 CHE 441 or CHE 010.0, or equivalents.

An introduction to the principles and practice of biological microtechnique, including basic histochemistry and immunohistology. Laboratory work involves the fixation, processing, sectioning and staining of animal or plant tissues for light microscopy.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

408.1(2) Vertebrate Embryology

Prerequisite: BIO 200.0 or permission of Department.

Early developmental processes involved in the transformation of the fertilized egg into a new individual.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

409.1(2) Electron Microscopy Techniques

Prerequisite: BIO 407.1(2).

An introduction to the principles and practice of biological material preparation for transmission and scanning electron microscopy, including cytochemistry, immunocytochemistry and quantitative microscopy. Laboratory work will consist of fixing, processing, microtomy and staining of biological material for transmission electron microscopy, and preparation of material for SEM, including freeze fracturing.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

411.1(2) Principles of Animal Parasitology

Prerequisite: BIO 200.0.

Relation between parasites and their hosts (symbiosis), emphasizing protozoa and helminths of aquatic vertebrates and of man. Aspects studied are biology and ecology of parasites, and physiology and immunology of parasitism. Laboratory work is on living and prepared materials, maintenance of life cycles and infectivity of aquatic vertebrates.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

413.1(2) Introduction to Microbiology

Prerequisite: BIO 200.0.

This course is designed to introduce students to the world of microorganisms. Topics covered include morphology, classification, taxonomy, and metabolism of bacteria, fungi, and viruses.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

414.1(2) Environmental Microbiology

Prerequisites: BIO 413.1(2) or 416.1(2); or permission of instructor.

A course in the biology of microorganisms highlighting molecular biology (physiology and genetics), ecology, and the exploitation of microorganisms by humans (biotechnology and industrial microbiology).

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

416.1(2) Mycology I

Prerequisite: BIO 200.0.

Introduction to the fungi. Students will become familiar with the members of this diverse group of organisms by studying the morphology and ecology of representatives from each of the major taxonomic groups.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

417.1(2) Mycology II

Prerequisite: BIO 416.1(2) or permission of instructor.

The uniqueness of fungal ultrastructure, physiology and genetics will be explored and the human application of this information will be discussed under the heading of biotechnology.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

418.1(2) Plant Growth and Development

Prerequisite: BIO 200.0 and 307.1(2).

This course introduces students to aspects of plant growth and development ranging from the molecular to the whole plant level. Laboratory classes will involve studies on the effects of plant hormones on whole plants, the in vitro culture of parts of plants and the study of light and other environmental factors of plant development, plant cell structures and organelles.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

419.1(2) Molecular Biology

Prerequisite: BIO 307.1(2) and CHE 344.1(2); or permission of instructor.

Topics in molecular biology and molecular genetics. The biochemistry of DNA, RNA and proteins will be discussed along with methods for studying these macromolecules. Using this information, the structure, function and evolution of genes will be examined. An introduction to population genetics will be included.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

447.1(2) Aquatic Biology in Bermuda

Prerequisite: BIO 200.0.

This course is an introduction to Bermudian environment with classroom and field emphasis on inland pond, shoreline, mangrove, seagrass, and conservation.

Classes 36 hrs., including lab and field work in Bermuda during a summer session.

448.1(2) Biology Field Course

Prerequisites: BIO 200.0.

The design and practice of biological study of communities under field conditions at selected sites in Nova Scotia. The main emphasis is on how ecologists document the abundance of organisms and quantify the structure of a community.

Classes 36 hrs., including lab and field work in Nova Scotia during a summer session.

501.0 Advanced Microbiology

Prerequisite: BIO 413.1(2)/414.1(2) or BIO 416.1(2)/417.1(2) or permission of instructor.

Recent advances in microbiology will be explored through extensive reading in the current literature, discussion and laboratory projects.

Classes 2 hrs. plus tutorials and lab 3 hrs. a week. 2 semesters.

510.0 The Theory of Ecosystems

Prerequisite: BIO 310.0.

Ecosystems are arbitrary classes in the hierarchy of life. This course examines contemporary views on the structure of ecosystems, on the processes of succession, on the diversity-stability debate, and on the response of ecosystems to stress.

Seminar and tutorial 2 hrs. plus lab 3 hrs. a week. 2 semesters.

549.0 Honors Seminar

Prerequisite: honors standing.

Seminars followed by discussions based on recent advances in biology. In consultation with the honors advisors, the honors students will select and prepare the topics for presentation to biology faculty and students.

Classes 3 hrs. a week. 2 semesters.

550.0 Advanced Mycology

Prerequisite: BIO 413.1(2)/414.1(2) or BIO 416.1(2)/417.1(2) or permission of instructor.

The study of morphology, classification, genetics and ecology of major groups of land and water fungi, fungal relationship to man, animals and plants will be discussed.

Classes 2 hrs. plus tutorials and lab 3 hrs. a week. 2 semesters.

552.0 Cytogenetics

Prerequisite: BIO 302.0.

Study of chromosome biology, experimental studies on the mitotic apparatus, karyotype and its evolution, sex chromosomes, control of meiotic system, regulation of chromosome pairing, cytology in relation to taxonomy and cancer cytology.

Classes 2 hrs. plus tutorial and lab 3 hrs. a week. 2 semesters.

553.0 Marine Invertebrates

Prerequisite: BIO 200.0.

Study of marine invertebrates with emphasis on commercial species. Taxonomy, morphology and physiology of the different groups will be the main topics covered. The life histories of representative species will be studied in the laboratory periods.

Classes 2 hrs. plus tutorials and lab 3 hrs. a week. 2 semesters.

554.0 Experimental Fish Embryology

Prerequisite: BIO 405.0, 407.1(2), and 408.1(2).

Detailed study of embryological development of fish with emphasis on the formation of organ systems. Laboratory work involves microscopical study of selected fish species raised by the student.

Classes 2 hrs. plus tutorials and lab 4 hrs. a week. 2 semesters.

555.0 Advanced Physiology

Prerequisite: BIO 302.0, BIO 305.0 and CHE 346.1(2).

A course dealing in some detail with advances in particular areas of animal physiology. Areas covered include metabolism of proteins, carbohydrates, lipids, and nucleic acids, intermediary metabolism, regulation and control of metabolic processes, bioenergetics, molecular physiology of muscles and neurophysiology.

Classes 2 hrs. plus tutorials and lab projects. 2 semesters.

590.0 Research Thesis

Prerequisite: honors standing.

Research project carried out by the student under the supervision of a member of the Department. The student will submit a thesis and present it orally.

Lab 6 hrs. a week. 2 semesters.

Chemistry (CHE)

Chairperson, Associate Professor	M. Zaworotko
Professors	D. Davies, C. Elson, J. Ginsburg K. Vaughan, J. Young
Assistant Professors	A. Piorko, R. Singer

The program of the Department of Chemistry is designed to satisfy the following functions:

1. Fulfill requirements for the general degree of Bachelor of Science, the degree of Bachelor of Science with major, and the degree of Bachelor of Science (Honors).

2. These degrees will permit graduates to enter the work force or graduate school with a background at least equal to that provided by other universities in Canada and the United States.

3. Introduce students in other disciplines to the ideas of chemistry and provide them with the chemical skills necessary for their professional development.

4. Members of staff are engaged in active research projects, and senior undergraduates are expected and encouraged to contribute to these projects. Some jobs, both during the term and in the summer, are available for senior undergraduates.

The core program for a major in chemistry consists of one of CHE 201.0, 202.0, or 203.0; and CHE 312.1(.2), 313.1(.2), 322.1(.2), 323.1(.2), 332.1(.2), 333.1(.2), 344.1(.2), 345.1(.2); and any two 400-level credits (2.0) in chemistry. Students may take two additional chemistry courses of their choice. Major students are also required to complete PHY 221.0 and this course should normally be taken in Year 1.

The core program for an honors degree in chemistry consists of one of CHE 201.0, 202.0, or 203.0; and CHE 312.1(.2), 313.1(.2), 322.1(.2), 323.1(.2), 332.1(.2), 333.1(.2), 344.1(.2), 345.1(.2), 442.1(.2), 413.1(.2), 443.1(.2), 444.1(.2), 498.0, and 500.0. Students are required to take one to three additional chemistry courses of their choice. Honors students are also required to complete PHY 205.0 and this course should normally be taken in Year 1. Honors students and students taking a major in physical chemistry must take MAT 301.1(.2) and 311.1(.2) in Year 2.

The core program for both combined majors and combined honors consists of: one of CHE 201.0, 202.0, or 203.0; three of CHE 312.1(.2), 313.1(.2), 322.1(.2), 323.1(.2), 332.1(.2), 333.1(.2), 344.1(.2), 345.1(.2); and one 400-level credit (1.0). In addition, it is strongly recommended that students complete MAT 210.1(.2)/211.1(.2) to fulfil the mathematics requirement, and PHY 205.0 as one of their science electives.

Note: Students who fail the laboratory component of a course will fail the course.

200.0 Introduction to Chemistry

The fundamental laws and principles of chemistry are explored and applied in the study of selected nonmetals, metals and their compounds.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

Note: This is a preparatory course. It does not carry a credit value; therefore it cannot be counted in the number of credits required for a degree, diploma or certificate.

203.0 General Chemistry for Physical Sciences

Prerequisite: Nova Scotia Grade 12 CHE 441 or CHE 010.0 or equivalent, and MAT 210.1(.2)/211.1(.2) to be taken concurrently.

A practical introduction to the chemistry of gases, liquids, solids and solutions.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

202.0 General Chemistry for Life Sciences

Prerequisite: Nova Scotia Grade 12 CHE 441 or CHE 010.0 or equivalent, and MAT 210.1(.2)/211.1(.2) or CSC 226.1(.2)/227.1(.2) to be taken concurrently.

A practical introduction for students in life sciences to the chemical behavior of gases, liquids, solids and solutions.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

203.0 General Chemistry for Engineers

Prerequisite: Nova Scotia Grade 12 CHE 441 or CHE 010.0 or equivalent, and MAT 210.1(.2)/211.1(.2) to be taken concurrently.

A practical introduction for engineering students to the chemical behavior of gases, liquids, solids and solutions.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

312.1(.2) Introductory Chemical Thermodynamics

Prerequisite: CHE 201.0 or 202.0 or 203.0, and MAT 210.1(.2)/211.1(.2).

An introduction to the laws of thermodynamics as they apply to the equilibrium behavior of ideal gaseous and liquid chemical systems.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

313.1(.2) Chemical Reaction Equilibria and Kinetics

Prerequisite: CHE 312.1(.2).

An introduction to the thermodynamics of non-ideal chemical systems and to chemical reaction kinetics.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

322.1(.2) Inorganic Chemistry

Prerequisite: CHE 201.0 or 202.0 or 203.0.

An introduction to theoretical aspects of inorganic chemistry. Course will cover atomic structure, electron configuration and periodicity of element properties. Bond types and classification of compounds based on bond types. VSEPR and Hybridisation theory to explain geometry. Structure of ionic solids. Ligand types and introduction to coordination chemistry - CFT, LFT, MOT and their application to explain properties of compounds. Introduction to reaction types and experimental techniques in inorganic chemistry such as NMR, ESR, and Crystallography.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

323.1(.2) Special Topics in Inorganic Chemistry

Prerequisite: CHE 322.1(.2).

An introduction to special topics in inorganic chemistry such as main group and transition metal organometallic chemistry, catalysis, bioinorganic chemistry and coordination chemistry. Emphasis will be on structure, reactivity and function of compounds.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

332.1(.2) Introductory Analytical Chemistry: Wet Methods [GEO 332.1(.2)]

Prerequisite: CHE 201.0 or 202.0 or 203.0.

An integrated lecture-laboratory course with emphasis on basic analytical methods. The practical application of analytical methods will be stressed by analyzing geological and environmental samples. Lecture topics will include treatment of data, theory of gravimetric and titrimetric analyses and chemical equilibria.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

333.1(.2) Introductory Analytical Chemistry: Instrumental Methods [GEO 333.1(.2)]

Prerequisite: CHE 201.0 or 202.0 or 203.0.

An integrated lecture-laboratory course with emphasis on basic analytical methods. The practical application of analytical methods will be stressed by analyzing geological and environmental samples. Lecture topics will include an introduction to electrochemistry, spectroscopy, chromatography and extractions.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

344.1(.2) Organic Chemistry I

Prerequisite: CHE 201.0 or 202.0 or 203.0.

Physical and chemical properties of simple aliphatic and aromatic compounds, including alkanes, alkenes, alkynes, polyenes, arenes, alkyl halides, alcohols, ethers, carboxylic acids, acid chlorides, esters, amides, anhydrides, aldehydes and ketones, amines. This course is designed for all students - life science, physical science, general science, engineers or non-science.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

345.1(2) Organic Chemistry IIA

Prerequisite: CHE 344.1(.2).

A course for chemistry majors and other physical science students intending to go on to more advanced organic chemistry. Introduction to the mechanisms of the reactions of monofunctional organic compounds. Introduction to stereochemistry. Simple spectroscopy. Macromolecules. Introduction to synthesis design.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

346.1(2) Organic Chemistry IIB

Prerequisite: CHE 344.1(.2).

A course for students in the life sciences. The organic chemistry of molecules of biological importance: lipids, fats and oils, terpenes and steroids, carotenoids, pheromones, amino acids and peptides, sugars, heterocycles, other natural products.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

373.1(2) Introduction to Environmental Chemistry I

Prerequisite: CHE 201.0 or 202.0 or 203.0.

A first course in those aspects of chemistry useful for studying environmental science and engineering. The topics include: a review of selected concepts from the general chemistry course; thermodynamic concepts of enthalpy and free energy; vapor pressure of liquids; surface tension; binary mixtures; osmosis; dialysis; solvent extraction, electrochemical cells; first and second order kinetics, catalysis; absorption; degradation of aliphatic, aromatic and polycyclic organic compounds including trace organics, detergents, soaps and pesticides.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

374.1(2) Introduction to Environmental Chemistry II

Prerequisite: CHE 373.1(.2).

The course attempts to bring into focus the chemistry which is particularly valuable to environmental science and engineering. The topics include: applications of equilibrium chemistry; colloids in liquid and gas phases; enzymes and their reactions with carbohydrates, proteins, fats and oils; nuclear fission; nuclear fusion; and the effect of radiation on man.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

375.1(2) Marine Chemistry I

Prerequisite: CHE 201.0 or 202.0 or 203.0.

An introduction to chemical oceanography. Tracers in the sea and its sediments are used as an aid to deciphering the chemistry of the ocean. Topics discussed include: pathways (of chemicals) from the river mouth to the sea floor; factors influencing the distribution of sedimentary constituents; cycles of gases within the sea; cycles of metals in the sea; and rates of vertical mixing and sediment accumulation.

Classes 3 hrs. and lab (chemical/computer) 3 hrs. a week. 1 semester.

376.1(2) Marine Chemistry II

Prerequisite: CHE 375.1(.2).

The ocean is viewed as a chemical system. Chemical information is integrated with information on ocean sediments, ocean currents and organisms living in the sea. Topics discussed include: control mechanisms operating within the sea; movement of water through the deep sea; movement of water through the oceanic thermocline; glacial to interglacial changes in ocean chemistry; and the buildup of fossil fuel CO₂ in the atmosphere and the oceans.

Classes 3 hrs. and lab (chemical/computer) 3 hrs. a week. 1 semester.

412.1(2) Quantum Chemistry

Prerequisite: CHE 312.1(.2) and 313.1(.2), MAT 310.1(.2) and 311.1(.2).

The basic principles of quantum physics are used to develop an understanding of atomic and molecular structure.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

413.1(2) Physical Chemistry

Prerequisite: CHE 312.1(.2) and 313.1(.2), MAT 310.1(.2) and 311.1(.2).

An introduction to statistical thermodynamics and the study of chemical reaction rates and mechanisms.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

421.1(2) Organometallic Chemistry

Prerequisite: CHE 323.1(.2) and 345.1(.2).

A survey of the history of and recent developments in the area of organometallic chemistry. Emphasis will be placed upon organotransition metal chemistry and its impact upon organic synthesis and catalysis. In the laboratory students will be introduced to air sensitive compounds and modern characterization techniques.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

432.1(2) Instrumental Analysis I

Prerequisite: CHE 332.1(.2) and 333.1(.2).

Emphasis will be placed on i) separation techniques including high performance and gas chromatography; ii) modern electro-chemical techniques including differential pulse voltammetry and stripping analysis; iii) analogue circuits and devices and digital electronics.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

433.1(2) Instrumental Analysis II

Prerequisite: CHE 332.1(.2) and 333.1(.2).

Emphasis will be placed on (i) atomic spectroscopy including atomic absorption and emission; (ii) x-ray fluorescence; (iii) neutron activation analysis; (iv) mass spectrometry.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

443.1(2) Organic Reaction Mechanisms

Prerequisite: CHE 345.1(.2).

A study of the more important mechanisms of reactions of organic molecules and the methods by which they are elucidated: applications of kinetic data, isotope effects, linear free energy relationships, orbital symmetry control and acid and base catalysis.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

444.1(2) Synthesis in Organic Chemistry

Prerequisite: CHE 345.1(.2).

A study of the principles involved in the planning and execution of the synthesis of organic molecules. Laboratory experiments are designed so that students learn to identify their products by the use of spectroscopic and other techniques.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

445.1(2) Organic Spectroscopy

Prerequisite: CHE 345.1(.2).

An introduction to the interpretation of ¹H and ¹³C nuclear magnetic resonance spectra. Infrared spectroscopy, mass spectrometry, and ultra-violet spectrophotometry will also be applied to the problems of organic and organometallic structural determination.

Classes 3 hrs. a week. 1 semester.

451.1(2) Introductory Biochemistry

Prerequisite: CHE 345.1(.2) or 346.1(.2).

An introduction to the chemistry of proteins, enzymes, sugars, lipids and nucleic acids. The laboratory will emphasize micro chemical measurements.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

452.1(2) Biochemistry: Metabolism and Molecular Biology

Prerequisite: CHE 345.1(.2) or 346.1(.2).

Intermediary metabolism, biosynthesis, bioenergetics, the genetic code, protein synthesis, and control of gene expression.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

498.0 Chemistry Seminar

Prerequisite: this is a final year course for honors students only.

A weekly seminar course that will cover a broad range of research topics that are of topical relevance. Speakers will include faculty from within and outside Saint Mary's University and students will normally be expected to present two seminars.

Classes 3 hrs. a week. 2 semesters.

30.0 Research Thesis

Prerequisite: restricted to final year students in the honors program.

Students will carry out a research project under the direction of one of the members of the Department and will prepare a thesis on their work. The thesis is presented orally.

Lab 6 hrs. a week (minimum). 2 semesters.

Recommended Program

The following programs are recommended by the Department of Chemistry for chemistry students taking the general science degree, the degree with a major, or an honors degree.

Scheme A: General Science Degree with Chemistry Concentration**Year 1**

1. CHE 201.0
2. MAT 210.1(.2)/211.1(.2)
3. a non-chemistry science elective (1.0)
4. a credit in the humanities (1.0)
5. EGL 201.1(.2)/202.1(.2)

Year 2

1. 2.0 credits from:
 - CHE 312.1(.2)/313.1(.2)
 - CHE 322.1(.2)/323.1(.2)
 - CHE 332.1(.2)/333.1(.2)
 - CHE 344.1(.2)/345.1(.2)/346.1(.2)
2. a non-chemistry science elective (1.0)
3. a credit in the humanities (1.0)
4. an elective (1.0)

Year 3

1. a chemistry elective (1.0)
2. a chemistry elective (1.0)
3. a non-chemistry elective (1.0)
4. a non-chemistry elective (1.0)
5. an elective (1.0)

Scheme B: Science Degree with a Major in Chemistry**Year 1**

1. CHE 201.0
2. PHY 205.0
3. MAT 210.1(.2)/211.1(.2)
4. EGL 201.1(.2)/202.1(.2)
5. a credit in the humanities (1.0)

Year 2

1. CHE 312.1(.2)/313.1(.2)
2. CHE 344.1(.2)/345.1(.2)
3. CHE 322.1(.2)/323.1(.2) or
CHE 332.1(.2)/333.1(.2)
4. a non-chemistry science elective
5. an elective

Years 3 and 4:

1. CHE 322.1(.2)/323.1(.2) or
CHE 332.1(.2)/333.1(.2)
2. 2.0 credits from:
 - CHE 412.1(.2) CHE 443.1(.2)
 - CHE 413.1(.2) CHE 444.1(.2)
 - CHE 421.1(.2) CHE 445.1(.2)
 - CHE 432.1(.2) CHE 451.1(.2)
 - CHE 433.1(.2) CHE 452.1(.2)
3. Electives in order to fulfill the requirements outlined in the Faculty of Science regulations, up to two (2.0) of which can be in chemistry (7.0)

Scheme C: Science Degree with Honors in Chemistry

(Note: Year 1 is as in Scheme B.)

Year 2

1. CHE 312.1(.2)/313.1(.2)
2. CHE 344.1(.2)/345.1(.2)
3. CHE 322.1(.2)/323.1(.2) or
CHE 332.1(.2)/333.1(.2)
4. MAT 310.1(.2)/311.1(.2)
5. a credit in the humanities (1.0)

Year 3

1. CHE 332.1(.2)/333.1(.2) or
CHE 322.1(.2)/323.1(.2)
2. CHE 412.1(.2)/413.1(.2)
3. CHE 443.1(.2)/444.1(.2)
4. Two half-credit courses (1.0 credit) from:
 - CHE 421.1(.2) 445.1(.2)
 - CHE 432.1(.2) 451.1(.2)
 - CHE 433.1(.2) 452.1(.2)
5. a non-chemistry elective (1.0)

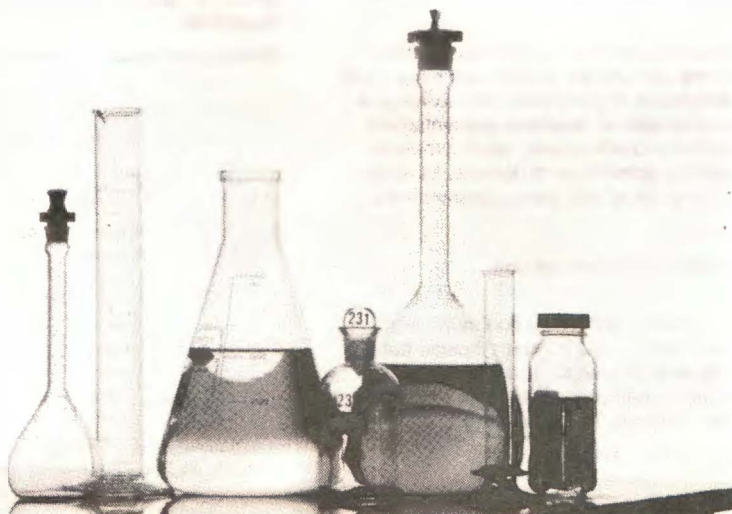
Year 4

1. CHE 498.0
2. CHE 500.0
3. a non-chemistry science elective (1.0)
4. an elective (1.0)
5. an elective (1.0)

Scheme D: Co-operative Education in Chemistry (COEC)

Available at both the general and major/honors level, this program integrates on-the-job work experience and academic studies. Upon completion of one of the Co-operative Education programs, the student receives the Bachelor of Science degree in chemistry (with a major or honors) and with the added qualification of "Co-operative Education".

Further details can be found under the Faculty of Science Co-operative Education regulations in Section 3 of this Calendar.



Chemistry — tools of the trade

Commercial Law (CML)

These courses are administered by the Department of Accounting.

201.1(.2) Legal Aspects of Business - Part I

Prerequisite: ECO 201.1(.2) and 202.1(.2) or appropriate work experience, determined in advance of registration by the Chairperson of the Department of Accounting.

An introduction to the essential legal aspects of commerce: contracts, some special contracts, corporations, and special areas, such as anti-combines, tax and tariff legislation.

Classes 3 hrs a week. 1 semester.

202.1(.2) Legal Aspects of Business - Part II

Prerequisite: CML 201.1(.2).

A further examination of some of the legal aspects of commerce; areas included are impeachment of contract, the requirements of writing, discharge of contracts, assignment of contracts, bailment, insurance, guarantee, and landlord and tenancy.

Classes 3 hrs. a week. 1 semester.

The following course is available only to students registered in the Master of Business Administration Program and with permission of the MBA Director to students registered in other master's programs.

601.1(.2) Commercial Law

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

A survey of the legal aspects of business such as contracts, corporate law, competition, sale of goods and consumer protection, negotiable instruments, employment, real estate, insurance and creditor rights. The workings of the legal system will also be explored.

Communications (COM)

These courses are administered by the Department of Marketing.

293.1(.2) Managerial Communications

Prerequisite: EGL 201.1(.2).

This course emphasizes business writing skills and prepares students to communicate effectively in a business environment. Students learn basic computer concepts and use word processors to write memoranda, letters, reports, resumes, and other business documents. The major focus of the course is on written communication skills and strategies. Teaching methods include lecture, discussion, and computer lab.

Classes 3 hrs. a week. 1 semester.

Note: Students who have previously earned a credit for EGL 250.1(.2) may not also earn a credit for COM 293.1(.2) or vice versa.

394.1(.2) Oral Communications and Presentation Techniques

Prerequisite: COM 293.1(.2).

This course focuses on oral communication in a business setting. The course will give students the opportunity to learn techniques and strategies related to the development, organization, and delivery of oral communications with an emphasis on business presentations. Topics will include topic selection and refinement, development of support material, and presentation polishing and delivery. Students will participate in and evaluate individual and group presentations.

Classes 3 hrs. a week. 1 semester.

475.1(.2) Advanced Managerial Communications

Prerequisite: COM 293.1(.2).

This course is designed to help students develop communications skills beyond those offered in COM 293.1(.2). Topics include but are not limited to long and short reports, proposals, presentations, communications in the workplace, performance reviews, strategic planning meetings, committee meetings, and interviews.

Classes and lab 3 hrs. each a week. 1 semester.

The following course is available only to students registered in the Master of Business Administration Program and with permission of the MBA Director to students registered in other master's programs.

675.1(.2) Advanced Managerial Communications

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director.

This course is designed to help students develop personal communications skills in a variety of marketing situations. Students learn to develop and present a formal marketing plan to a client; increase the impact of written documents through format, design, and graphic illustration; increase the impact of oral presentations through effective use of voice, body, setting, and audio-visual support; prepare for, participate in, record minutes for, and chair strategic planning meetings; sell their professional assets to a potential employer; and use current electronic tools to achieve these objectives.

Classes and lab 3 hrs. each a week. 1 semester.

Computing Science and Business Administration

Committee on Computing Science and Business Administration

Pray, Director	Finance and Management Science
Bateman	Accounting
Muir	Mathematics and Computing Science
Gregory	Finance and Management Science
Scobey	Mathematics and Computing Science
Highes, Co-op Coordinator	Mathematics and Computing Science

Computing Science and Business Administration is an interdisciplinary four-year program that can be taken by students registered in either the Faculty of Commerce or the Faculty of Science. This program was developed to meet the increasing demand for people with a technical knowledge of computing science who could also understand the application of this technology to business problems.

Entrance Requirements

To be admitted to this program directly from high school, students must have five Grade 12 subjects including English 441, Mathematics 441, and three other academic subjects with an average of at least 80 percent. For those enrolling in the Faculty of Science, two of the other academic subjects must be from the sciences.

To transfer into this program from another program within the University or from another university, the student must have completed at least five credits (5.0) with a minimum cumulative quality point average of 3.00 and have the permission of the Program Director.

Course Program

Students must meet the general requirements of the Faculty in which they are enrolled.

Students must complete 20.0 credits as listed below according to the Faculty in which they are enrolled.

Students	Commerce	Science
Year 1		
CSC 226* (0.5)	EGL 201 or 202 (0.5)	Science elective (1.0)
CSC 227* (0.5)	CML 201 (0.5)	
ECO 201* (0.5)		
ECO 202* (0.5)		
MAT 210* (0.5)		
MAT 211* (0.5)		
MGT 281* (0.5)		
EGL 201 or 202 (0.5)		
Year 2		
ACC 241* (0.5)	COM 293 (0.5)	EGL 201 or 202 (0.5)
ACC 242* (0.5)		
CSC 341* (0.5)		
CSC 342* (0.5)		
MAT 305* (0.5)		
MAT 320* (0.5)		
MGT 270* (0.5)		
MSC 324* (0.5)		
MSC 207* (0.5)		
Year 3		
ACC 332* (0.5)	Free elective (1.0)	Science elective (1.0)
ECO 327 (0.5)		
ECO 328 (0.5)		
ECO 350* (0.5)		
ECO 351* (0.5)		
MGT 353* (0.5)		
MGT 384* (0.5)		
MSC 301* (0.5)		
Year 4		
ACC 323* (0.5)	Commerce elective (1.0)	Humanities elective (1.0)
ACC 425* (0.5)	ECO elective (1.0)	Humanities elective (1.0)
ACC 461* (0.5)	Free elective (0.5)	Free elective (0.5)
ECO 462* (0.5)		
MGT 489* (0.5)		

Notes:

- Both EGL 201.1(.2) and EGL 202.1(.2) must be completed.
- All electives are to be at the 200 level or above.
- The economics electives may not include ECO 317.1(.2) or ECO 322.1(.2).
- The humanities electives are to be selected from classics, English, history, modern languages, philosophy, and religious studies.
- EGL 250.1(.2) may be taken instead of COM 293.1(.2).
- Credit will not be given for CSC 101.1(.2) or any other introductory computing course if taken subsequent to CSC 226.1(.2).
- No more than one credit (1.0) of elective courses can be selected from MSC 225.1(.2), MSC 326.1(.2), MSC 424.1(.2), EGN 204.1(.2), CSC 332.1(.2), or other programming courses.
- Credit will not be given for MAT 190.1(.2), MSC 205.1(.2)/206.1(.2), or other preparatory or introductory mathematics courses if taken subsequent or concurrent to MAT 210.1(.2)/211.1(.2).
- Further information on particular courses, including required prerequisites, can be found in the section of the Calendar for the appropriate department.
- Courses marked with an asterisk are considered as major courses for the purpose of regulation 9 of the Faculty of Science.
- Canada Science Scholars should take ACC 323.1(.2) in Year 3 and replace one humanities elective with another science elective to fulfil the science requirement of the scholarship. For each such student, this program change must be authorized by the Dean of Science.
- For students in this program, MAT 211.1(.2) can replace MSC 205.1(.2) or MSC 206.1(.2) as a prerequisite for other commerce courses.
- For students in this program, normally CSC 227.1(.2) can replace MSC 225.1(.2) as a prerequisite for other commerce courses. However, a knowledge of the topics covered in MSC 225.1(.2) will be assumed in other courses.

Co-operative Education Program

This program has a Co-op option. Students taking the Co-op option must meet all the requirements of the Computing Science and Business Administration Program. As for other majors programs, four work terms must be successfully completed. Additional requirements can be found in the Faculty of Science section of the Calendar. At the end of their first semester, interested students should see the Co-operative Education Coordinator for the program.

Note: Students who complete a specific sequence of courses in computing science at Saint Mary's University may be eligible to transfer into the Bachelor of Computing Science with Engineering option program at the Technical University of Nova Scotia. Further information may be obtained from the Department of Mathematics and Computing Science.

Economics (ECO)

Chairperson, Professor
Professors

A. Harvey
P. Arya, E. Doak,
M. MacDonald,
A. Mukhopadhyay
S. Amirkhalkhali, A. Dar
A. Akbari, J. Taheri

Associate Professors
Assistant Professors

Department Statement

Economics has been defined as "the study of how men and society end up choosing, with or without the use of money, the employment of scarce productive resources, which could have alternative uses, to produce various commodities over time and distribute them for consumption, now and in the future, among various people and groups in society." (Paul A. Samuelson)

Economics borders on other academic disciplines, such as political science, sociology, psychology, anthropology and business administration. It also draws heavily on the study of history, statistics and mathematics.

Students who desire some minimum understanding of economics are encouraged to consider taking one or more courses at the 200 level. Entrance into higher level courses ordinarily requires a full-year of principles of economics, but this may be waived with the approval of the Department.

The Economics Department is able to offer students with a special interest in economics the opportunity to undertake some concentration beyond the core of required courses in the following areas and associated courses.

Money and Banking: ECO 307.1(.2), 407.1(.2)
Public Finance: ECO 318.1(.2), 319.1(.2)
International: ECO 313.1(.2), 414.1(.2)
Quantitative: ECO 302.1(.2), 303.1(.2), 309.1(.2), 409.1(.2)
Urban-Regional: ECO 324.1(.2), 325.1(.2), 430.1(.2), 450.1(.2)
Natural Resources and Environment: ECO 360.1(.2), 361.1(.2)
Comparative Systems: ECO 315.1(.2), 323.1(.2)
History and Development: ECO 306.1(.2), 310.1(.2), 317.1(.2), 406.1(.2), 410.1(.2)
Labour: ECO 339.1(.2), 340.1(.2)
Industrial Organization: ECO 316.1(.2)
Other theory courses: ECO 304.1(.2), 305.1(.2), 312.1(.2), 412.1(.2), 440.1(.2), 441.1(.2)

Students who desire a major in economics are encouraged to enroll in an appropriate program under the guidance of a faculty advisor. There are two general programs: (1) Bachelor of Arts with a major in economics, and (2) Bachelor of Commerce with a major in economics.

The former requires a total of fifteen credits (15.0). The latter requires a minimum of twenty credits (20.0). See Faculty of Arts and Faculty of Commerce, Section 3 of this Calendar, for the basic requirements for these degrees.

Regardless of the degree sought, the Department of Economics requires that the program of study leading to a major in economics include the following:

- Nova Scotia Grade 12 MAT 441 or 442.
- EGL 201.1(.2) and 202.1(.2).
- One credit (1.0) in university mathematics beyond the level of difficulty of Nova Scotia Grade 12 Mathematics or equivalent. [MSC 205.1(.2) and 225.1(.2), which are required of all Bachelor of Commerce students, and recommended for all Bachelor of Arts majors in economics, satisfy this requirement.] Bachelor of Arts students, majoring in economics who entered Saint Mary's without Nova Scotia Grade 12 MAT 441 or 442 or equivalent may substitute ECO 304.1(.2) and 305.1(.2) for the above requirement.
- One credit (1.0) in the humanities (classics, history, philosophy and religious studies), or languages (English or modern languages). In special circumstances, with the permission of the Chairperson, all or part of this requirement may be fulfilled from among the following: ECO 306.1(.2); 312.1(.2); 315.1(.2); 323.1(.2); 406.1(.2); and 412.1(.2). Philosophy 200.0 does not satisfy this requirement.

- One credit (1.0) from the social sciences other than economics.
- The following economics courses:
ECO 201.1(.2) Principles of Economics: Micro
ECO 202.1(.2) Principles of Economics: Macro
ECO 206.1(.2) Introduction to Quantitative Methods for Economists II
or
MSC 206.1(.2) Introduction to Quantitative Methods for Commerce II
ECO 207.1(.2) Introductory Statistics for Economics or
MSC 207.1(.2) Introductory Statistics for Commerce
ECO 300.1(.2) Intermediate Microeconomic Theory I
ECO 301.1(.2) Intermediate Macroeconomic Theory I
ECO 304.1(.2) Intermediate Microeconomic Theory II or
ECO 305.1(.2) Intermediate Macroeconomic Theory II
One of: ECO 306.1(.2), ECO 310.1(.2), ECO 312.1(.2), ECO 315.1(.2), ECO 323.1(.2), ECO 406.1(.2), or ECO 412.1(.2)
4 additional half-credit economics electives (2.0 credits) of which two half-credits (1.0 credit) must be at the 400 level; the remaining one credit (1.0) must be at the 300 level or above.

In addition, students must satisfy conditions set down by the Faculty in which they enroll. Bachelor of Arts students majoring in economics are especially advised to consult Faculty of Arts requirement 3-c when fulfilling the above regulation.

Suggested Courses Leading to a Bachelor of Arts Degree with Major in Economics

Year 1

- ECO 201.1(.2) and 202.1(.2)
- Mathematics and/or computing science (see note 2 below) (1.0 credit)
- EGL 201.1(.2) and 202.1(.2)
- Social science other than economics (e.g., political science, anthropology, sociology, geography, or psychology) (1.0 credit)
- Humanities or language [e.g., classics, history, English or modern languages, philosophy (not PHI 200.0), religious studies] (1 credit)

Year 2

- ECO 300.1(.2) and ECO 301.1(.2)
- ECO 206.1(.2) and ECO 207.1(.2)
- ECO 304.1(.2) or ECO 305.1(.2)
- One of: ECO 306.1(.2), ECO 310.1(.2), ECO 312.1(.2), ECO 315.1(.2), ECO 323.1(.2), ECO 406.1(.2), ECO 412.1(.2)
- Electives (2.0 credits)

Year 3

- ECO electives (2.0 credits)
- Electives (3.0 credits)

Notes:

- Students are reminded that the electives should be chosen in such a way as to fulfil the Faculty of Arts requirements. (See Section 3 of this Calendar.)
- Students taking ECO 205.1(.2) and MSC 225.1(.2) to satisfy requirement c. above, should take ECO 205.1(.2) and 206.1(.2) in Year 1 and ECO 207.1(.2) and MSC 225.1(.2) in Year 2.

For suggested courses for a Bachelor of Commerce degree with a major in economics, see the Faculty of Commerce Section of this Calendar.

Year 4: Honors

The Department of Economics offers honors programs to students enrolled in either the Faculty of Arts or the Faculty of Commerce. Descriptions of the general requirements for the degrees of Bachelor of Arts (Honors) and of Bachelor of Commerce (Honors) are contained in Section 3. In addition to these general requirements, for graduation with honors in economics, all students must comply with the following:

- Students must satisfy the applicable requirements for a major in economics as outlined on the preceding pages.
- The ten credits (10.0) in economics presented for honors must include:

ECO 201.1(.2), ECO 202.1(.2), ECO 206.1(.2), and ECO 1(.2), or equivalent;

one credit (1.0) in microeconomic theory beyond the 200 level;

one credit (1.0) in macroeconomic theory beyond the 200 level;

ECO 302.1(.2), ECO 303.1(.2), and ECO 309.1(.2), or one and

credits (1.5) from the Mathematics and Computing Science

Department with the approval of the Chairperson of the Economics

Department;

an honors project, which is the equivalent of one credit (1.0),

under the supervision of a faculty member;

either ECO 306.1(.2), ECO 312.1(.2), ECO 406.1(.2), ECO

1(.2), or another economics half-credit course (0.5) approved by

the Chairperson;

one economics credit (1.0) at the 400 level, namely ECO

1(.2) and ECO 441.1(.2).

With the approval of the Chairperson of the Economics

Department, a student may be permitted to substitute up to two

credits (2.0) from a related subject area as part of the ten credits

(10) in economics presented for honors.

Commerce students doing honors in economics are permitted to

count one economics credit (1.0) at the 300 level or above as a non-

Commerce elective.

The recommended course selection and sequence for the

degree of Bachelor of Commerce (Honors: Economics) can be found

in the Bachelor of Commerce section of this Calendar.

ECO 101(.2) Principles of Economics: Micro

General price theory, theory of the firm, market structure, production,

revenue and profit maximization, theory of distribution.

Classes 3 hrs. a week. 1 semester.

ECO 102(.2) Principles of Economics: Macro

National income determination, national accounting, business

cycles, savings, money and banking, international economics, economic

growth.

Classes 3 hrs. a week. 1 semester.

ECO 103(.2) Introduction to Quantitative Methods for Economists I

Prerequisite: Nova Scotia Grade 12 MAT 441 or 442; or MAT

103(.2)/051.1(.2); or equivalent.

This course illustrates applications of basic mathematical techniques

such as break-even analysis, data manipulation, aggregate planning and

operational planning. Topics include linear functions, linear inequalities,

the simplex method, compound interest, annuities and depreciation.

Classes 3 hrs. a week. 1 semester.

Note: This is the same course as MSC 205.1(.2).

ECO 104(.2) Introduction to Quantitative Methods for Economists II

Prerequisite: Nova Scotia Grade 12 MAT 441 or 442; or MAT

104(.2)/051.1(.2); or equivalent.

The purpose of this course is to provide a basic understanding of the

properties of non-linear functions as they relate to the use of scarce

resources for profit maximization. Students will be exposed to the

methods of calculus and the basic concepts of probability as

they relate to decision making in an uncertain environment.

Classes 3 hrs. a week. 1 semester.

Note: This is the same course as MSC 206.1(.2).

ECO 105(.2) Introductory Statistics for Economists

Prerequisite: ECO 206.1(.2).

This course is designed to introduce some common decision aids for

dealing with uncertainty. Topics include: data collection,

organization and presentation, reporting and interpreting the

accuracy of results, evaluating the effectiveness of a decision and

identifying relationships among factors for the purpose of prediction.

Examples will be drawn from accounting, economics, marketing,

management, finance and production.

Classes 3 hrs. a week. 1 semester.

Note: This is the same course as MSC 207.1(.2).

ECO 201.1(.2) Intermediate Microeconomic Theory I

Prerequisite: ECO 201.1(.2) and 206.1(.2), or permission of instructor.

Theory of consumer behavior and demand, theory of production and cost, behavior of the firm, theory of price and output under different market structures.

Classes 3 hrs. a week. 1 semester.

ECO 202.1(.2) Intermediate Macroeconomic Theory I

Prerequisite: ECO 202.1(.2) and 206.1(.2) or permission of instructor.

National income accounting, models of aggregate income output and price level determination, analysis of and public policies for unemployment and inflation.

Classes 3 hrs. a week. 1 semester.

ECO 202.1(.2) Mathematical Economics

Prerequisite: ECO 201.1(.2) and 202.1(.2); and ECO 206.1(.2) or equivalent.

An introduction of the role of mathematics in economic analysis.

Mathematical topics include linear algebra, partial differentiation, implicit function theorems and comparative statics analysis, unconstrained and constrained optimization theory.

Classes 3 hrs. a week. 1 semester.

ECO 207.1(.2) Intermediate Economic Statistics

Prerequisite: ECO 207.1(.2) or equivalent.

A further study of the basic concepts of statistics and its application to the solution of business and economic problems: review of probability, random variables and their distribution, sampling and sampling distributions, normal and associated distribution, statistical inference, simple and multiple regression and related topics.

Classes 3 hrs. a week. 1 semester.

Note: This is the same course as MSC 303.1(.2).

ECO 300.1(.2) Intermediate Microeconomic Theory II

Prerequisite: ECO 300.1(.2).

This course is a sequel to ECO 300.1(.2). Topics covered will include: theory of distribution and input markets, intertemporal choice, general equilibrium analysis, topics in welfare economics.

Classes 3 hrs. a week. 1 semester.

ECO 301.1(.2) Intermediate Macroeconomic Theory II

Prerequisite: ECO 301.1(.2).

Extension of topics covered in ECO 301.1(.2) to include theories of aggregate consumption and investment expenditures, inflation, growth, international aspects of macroeconomics and macroeconomic policy.

Classes 3 hrs. a week. 1 semester.

ECO 302.1(.2) North American Economic History

Prerequisite: ECO 202.1(.2) and 300.1(.2); or ECO 201.1(.2) and 202.1(.2) and permission of the instructor; or 1.5 credits in history and permission of instructor.

This course surveys growth, fluctuation and structural change in the North American economy, from the Revolution Era to the Great Depression. Topics such as slavery, the Civil War, industrialization, railroads and the capital market will be included.

Classes 3 hrs. a week. 1 semester.

ECO 303.1(.2) Money and Banking

Prerequisite: ECO 201.1(.2) and 202.1(.2).

Money and the payments system, development of banking in Canada, financial instruments, theory of banks' intermediation, chartered banks structure, operation and competition, governments and Canadian financial markets.

Classes 3 hrs. a week. 1 semester.

ECO 303.1(.2) Introduction to Econometrics

Prerequisite: ECO 303.1(.2) or permission of instructor.

Theory and applications of econometric models and their estimation. Linear algebra will be used to study classical linear regression. Some extensions of the basic single equation model will be discussed.

Classes 3 hrs. a week. 1 semester.

310.1(2) Development Economics

Prerequisite: ECO 201.1(2) and 202.1(2).

Alternative theories of growth and development, including economic and non-economic determinants of growth in developing countries, the role of government in development policies and lessons from experience in growth and change.

Classes 3 hrs. a week. 1 semester.

312.1(2) History of Economic Thought

Prerequisite: ECO 201.1(2) and 202.1(2).

This course traces the development of economic ideas from the middle ages to the middle of the 19th century (Karl Marx). Students will be introduced to the contributions of economic ideas of these times to contemporary thinking.

Classes 3 hrs. a week. 1 semester.

313.1(2) International Finance

Prerequisite: ECO 201.1(2) and 202.1(2).

An introduction to the theory, institutions, and history of international finance: balance of payments; foreign exchange rates, instruments, and markets; adjustment mechanisms; stabilization policy.

Classes 3 hrs. a week. 1 semester.

315.1(2) Comparative Economic Systems

Prerequisite: ECO 201.1(2) and 202.1(2).

An examination of how different economic systems choose to solve the basic economic problems of resource allocation and distribution of income and wealth. Theoretical models of (idealized) economic systems as developed by the Classical economists (e.g., Smith, Ricardo, Mill), Marx, Schumpeter, Lange, Keynes, etc., will be studied. The structure and performance of existing systems (e.g., Western managed capitalism, Yugoslavian market socialism and Eastern European command socialism) will also be analyzed.

Classes 3 hrs. a week. 1 semester.

316.1(2) Industrial Organization

Prerequisite: ECO 201.1(2) and 202.1(2).

The course begins by laying out the arguments for competitive market processes and then proceeds to investigate the determinants of real-world industrial market structures, the behavior of firms, and efficiency in resource allocation.

Classes 3 hrs. a week. 1 semester.

317.1(2) The Economic History of Europe

An examination of the economic evolution of Modern Europe, with major concentration on the period from 1750 to the present. The course does not deal with the chronological development but rather emphasizes those aspects of history which are reflected in contemporary institutions, practices and policies.

Classes 3 hrs. a week. 1 semester.

Note: This course is not open to Commerce students nor does it count as an elective for a major in economics.

318.1(2) Public Finance: Expenditure

Prerequisite: ECO 201.1(2) and 202.1(2).

This course is an introduction to Public Finance with special emphasis on the theory of government expenditures. Topics may include public goods, externalities, income redistribution, and fiscal federalism.

Classes 3 hrs. a week. 1 semester.

319.1(2) Public Finance: Taxation

Prerequisite: ECO 201.1(2) and 202.1(2).

This course is an introduction to Public Finance with special emphasis on government revenues. Topics may include tax incidence theory, personal income taxation, sales and excise taxes, property tax, corporation income tax, public debt, and stabilization policy.

Classes 3 hrs. a week. 1 semester.

322.1(2) Current Economic Problems

The lectures introduce the student to the discipline of economics through a survey of the major economic issues of the current decade. It is designed for students who wish to familiarize themselves with economic principles and their applications, but do not feel a need for a more theoretical and technical introduction to economics' principles.

Classes 3 hrs. a week. 1 semester.

Note: This course is not open to Commerce students nor does it count as an elective for a major in economics.

323.1(2) Soviet-Type Economies

Prerequisite: ECO 201.1(2) and 202.1(2).

This course traces the economic history of the Soviet Union from the 1917 revolution through the Stalinist period to the present. This provides a background for examining the functioning of the contemporary Soviet economy and economies which have been structured on the Soviet model in Eastern Europe and Asia. The trend in economic reforms in Eastern Europe will also be studied.

Classes 3 hrs. a week. 1 semester.

324.1(2) The Atlantic Economy

Prerequisite: ECO 201.1(2) and 202.1(2).

Analysis of the structure, development and performance of the economy of the Atlantic region. Topics covered include: economic history of the region, current structure of the regional economy and state of economic development, sub-regional differences in economic structure and performance, external trade linkages, demographic and labour market characteristics, the role of government in the development process.

Classes 3 hrs. a week. 1 semester.

325.1(2) Atlantic Economy Seminar

Prerequisite: ECO 201.1(2) and 202.1(2).

This course will examine in detail a small number of current economic issues in the Atlantic region. General topic areas, from which specific issues may be chosen, include: the impact on the region of policies and programs of the federal government including monetary, fiscal, manpower, and development policies; the role of provincial and municipal planning and development agencies; the role of key sectors of the economy in future development, including energy, natural resources, steel, and transportation.

Classes 3 hrs. a week. 1 semester.

339.1(2) Introduction to Labour Economics

Prerequisite: ECO 201.1(2) and 202.1(2).

This course introduces the student to the study of labour markets - supply and demand for labour, and wage and employment determination in different types of markets. Emphasis is on the economic analysis of wage differentials, including the importance of human capital, unionization, internal labour markets, discrimination and segmented labour markets.

Classes 3 hrs. a week. 1 semester.

340.1(2) Human Resource Economics

Prerequisite: ECO 304.1(2) or 339.1(2).

This course examines a variety of topics in the study of labour markets and human resource use. Topics in any year may include the changing composition of the labour force and structure of employment; unemployment and manpower policy; history, structure and impact of the labour movement; inequalities in the labour market; income distribution and problems of poverty; technological change; macro-economic policy and the labour market.

Classes 3 hrs. a week. 1 semester.

349.1(2) Women and the Economy**[WMS 349.1(2)]**

Prerequisite: ECO 339.1(2) or permission of instructor.

This course will examine various aspects of women's participation in the economies of developed countries (primarily Canada) as well as developing countries. Topics in any year may include analysis of the relationship between the paid and unpaid work of women, changed labour force participation, trends and determinants of the male/female wage gap, models of household economic decision-making, the impact of technological change, and the international gender division of labour. Particular attention will be paid to policy issues relevant to the economic status of women. The course will also examine gender bias in the theory, methodology and practice of economics and will evaluate various theoretical approaches to the study of women.

Classes 3 hrs. a week. 1 semester.

ECO 201.1(2) Fisheries Economics

Prerequisite: ECO 201.1(2) or permission of instructor.

This course emphasizes the application of economic concepts to problems of fishery management and development. Topics to be discussed include: common property resources, the economics of fishery regulation, socioeconomics, fish markets, and the fishery as part of the national and regional economy. Particular attention will be paid to current issues in the Atlantic Canada fishery.

Classes 1 1/2 hrs. a week. Seminars 1 1/2 hrs. a week. 1 semester.

ECO 201.1(2) Natural Resource Economics

Prerequisite: ECO 201.1(2) and 202.1(2).

This course examines the principles governing the use of natural resources, and analyses the economics of natural resource industries such as fisheries, forestry and mining. Emphasis is placed on the economic importance of time, since resource conservation requires a balance between current and future use. Methods to achieve optimal social benefits through the economic regulation of resource allocation will be addressed.

Classes 3 hrs. a week. 1 semester.

Note: Students with credit for ECO 360.1(2) will not be given credit for this course.

ECO 201.1(2) Environmental Economics

Prerequisite: ECO 201.1(2).

This course focuses on the application of economic principles to such environmental issues as air and water pollution, preservation of wildlife and wilderness areas, and the balance between economic activity and environmental health. The environmental impacts of fisheries, forestry, and mining are also discussed. Methods for environmental management are considered, particularly addressing the potential role of economic institutions and economic instruments. Some discussion of current Canadian policy issues is also undertaken.

Classes 3 hrs. a week. 1 semester.

Note: Students with credit for ECO 360.1(2) will not be given credit for this course.

ECO 306.1(2) Canadian Economic History in an International Context

Prerequisite: ECO 306.1(2) or permission of instructor.

This course provides an intensive examination of selected issues in the economic history of North America with an emphasis on the Canadian economy in an international context. Topics such as the Great Depression, National Policy, manufacturing finance, and Staple Theories will be included.

Classes 1 1/2 hrs. a week. Seminars 1 1/2 hrs. a week. 1 semester.

ECO 301.1(2) Monetary Economics

Prerequisite: ECO 201.1(2) and 301.1(2).

This course examines the nature and characteristics of central banks in general and the Bank of Canada in particular; monetary policy and its objectives. The control of the money supply; government operations and monetary policy; determinants and theory of the money supply; the development of monetary theory.

Classes 3 hrs. a week. 1 semester.

Note: Students who received a credit for this course when it was offered at the 300 level will not be permitted to retake the course and receive an additional credit.

ECO 309.1(2) Econometric Modelling and Forecasting

Prerequisite: ECO 309.1(2).

Theory and application for econometric models and their estimation. Emphasis will be placed on the techniques of econometric modelling and forecasting. Topics such as simultaneous equation models, time series models and forecasting will be included.

Classes 3 hrs. a week. 1 semester.

ECO 300.1(2) Issues In Economic Development

Prerequisite: ECO 300.1(2) and 310.1(2).

Specific problems in economic development; emphasis on government policies, foreign aid, foreign trade and their impact on developing countries.

Classes 3 hrs. a week. 1 semester.

ECO 300.1(2) History of Modern Economic Thought

Prerequisite: ECO 300.1(2) and 301.1(2).

The course traces the development of economic thought from the late 19th century (Marginalism) to the present and includes Keynesianism, Monetarism and Institutional Economics. Particular attention is paid to common themes and sources of divergence among economic doctrines.

Classes 3 hrs. a week. 1 semester.

ECO 300.1(2) International Trade

Prerequisite: ECO 300.1(2).

An introduction to the theory of international trade: comparative advantage, modern refinements, gains from trade, empirical relevance of trade models, tariffs and protection, economic integration, trade and growth.

Classes 3 hrs. a week. 1 semester.

Note: Students who received a credit for this course when it was offered at the 300 level will not be permitted to retake the course and receive an additional credit.

ECO 301.1(2) Regional Economics

Prerequisite: ECO 301.1(2) or permission of instructor if ECO 300.1(2) has been completed.

An examination of the theoretical basis of interregional growth and disparities, methods of regional analysis and evaluation of policies and programs affecting regions. Topics include the nature and measurement of regional disparities, regional growth theory, interregional trade and mobility theory, regional economic analysis and regional economic policy.

Classes 3 hrs. a week. 1 semester.

Note: Students who received a credit for this course when it was offered at the 300 level will not be permitted to retake the course and receive an additional credit.

ECO 304.1(2) Advanced Microeconomics

Prerequisite: ECO 304.1(2).

Treatment of the major topics in microeconomic theory at an advanced level. Topics will include the theory of the firm, consumer behavior and distribution theory. Other topics which could be covered at the discretion of the instructor may include: welfare economics, theories of capital and interest, game theory and decision-making models.

Classes 3 hrs. a week. 1 semester.

ECO 305.1(2) Advanced Macroeconomic Theory

Prerequisite: ECO 305.1(2).

Treatment of some major topics in macroeconomic theory at an advanced level. Topics may include welfare economics, static macroeconomic models, demand for and supply of money, theories of interest, inflation, economic growth and business cycles.

Classes 3 hrs. a week. 1 semester.

ECO 300.1(2) Urban Economics

Prerequisite: ECO 300.1(2).

Economics of an urban economy: why it grows and how it copes with growth. Urban policies for transportation, housing, labour markets and public services are examined. Theories of location, city formation and urban spatial structure are examined.

Classes 3 hrs. a week. 1 semester.

Note: Students who received a credit for this course when it was offered at the 300 level will not be permitted to retake the course and receive an additional credit.

ECO 310.1(2) Issues In Economic Development

This course analyses selected aspects of economic development. Issues related to debt, foreign direct investment, foreign aid, technology, late industrialisation, poverty and agricultural development may be covered. The course may take a specific regional focus.

ECO 300.1(2) Seminar In Economics

Prerequisite: ECO 300.1(2) and 301.1(2).

This course deals with selected topics in economics. It is offered when in sufficient demand, and specific topics covered may vary depending on the interests of students and instructors.

Classes and independent study. 1 semester.

492.1(2) Directed Study

Prerequisite: ECO 201.1(2) and 202.1(2) and permission of instructor.

Intended to supplement or provide an alternative to the regular economics courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Independent study. 1 semester.

591.0 Honors Seminar and Project

Prerequisite: admission to the honors program.

Students enrolled in the honors program are required to complete a project under the direction of a faculty member. This course is designed to enable the student to fulfil this requirement.

Classes and independent study. 2 semesters.

The following courses are available only to students registered in the Master of Business Administration Program and with permission of the MBA Director to students registered in other master's programs.

500.1(2) Economics of the Enterprise

An examination of the economic behavior of the consumer and the firm, including market demand and structure and the pricing and employment of factor inputs.

Classes 3 hrs. a week. 1 semester.

501.1(2) Economics of Enterprise Environment

The course studies the determinants of and changes in the level of national income, monetary and fiscal theory, and international trade and finance theory and policy.

Classes 3 hrs. a week. 1 semester.

600.1(2) Issues in Industrial Economics

Prerequisite: ECO 500.0.

This course deals with such topics as competition policy, technological change in industry, behavior under uncertainty, and the economics of regulation. It draws on theories of industry structure, conduct and performance, and emphasizes applications in the Canadian context.

Classes 3 hrs. a week. 1 semester.

690.1(2) Seminar in Economics

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course deals with selected topics in economics. It is offered when in sufficient demand, and specific topics covered may vary depending on the interests of students and instructors.

Classes and independent study. 1 semester.

692.1(2) Directed Study

Prerequisite: completion of all 500-level MBA courses or permission of MBA Director, Department Chairperson, and instructor.

This course supplements and provides an alternative to the regular economics courses in order to meet the special needs and interests of students. It also provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Independent study.

698.1(2) Research Seminar in Economics

Prerequisite: completion of all 500-level MBA courses or permission of MBA Director.

A study of research problems and methodologies in economics, with each student preparing and defending a research proposal of his or her own based upon a critical review of current literature. This course is designed to aid students in the development of their project courses.

Classes and independent study. 1 semester.

699.1(2) Research Project in Economics

Prerequisite: ECO 698.1(2) or permission of MBA Director.

Each student is required to complete a project involving the practical application of the research concepts and techniques used in economics, under the direct supervision of a faculty member. Interdisciplinary projects are acceptable.

Independent study.



Class presentation

Education (EDU)

Dean, Professor	T. Piper
Professors	J. Haysom, D. Weeren
Associate Professors	B. Davis, F. Dockrill, M. Herrick, J. Jackson, M. MacMillan, D. Piper, R. Sargent
Assistant Professors	B. Hanrahan, U. Kelly, G. Perry
Adjunct Professors	R. Courchene, E. Gatlinton
Part-Time Professors	F. Blacklock, J. Boudreau, G. Clarke, A. Dorrington, C. Farwell, D. Ferns, R. French, W. Gorman, G. Gorveatt, P. Griesbauer, D. Kaufman, A. Kilcher, A. Lowe, A. MacCuspie, L. MacLeod, C. Mullalley, P. Murray, S. Myers, L. Naud, J. Norris, M. Sargent, B. Savron, E. Sharpe, A. Smith, J. Stone, T. Sullivan, M. VanderPlaat, G. Watson, G. Young

base for in-depth study of their application in strengthening teaching skills in the areas of lesson planning, the facilitation of meaningful learning and human interaction in the teaching situation.

521.1.(2) Secondary Reading

An introductory course in reading principles and methodology that can be utilized by a secondary school teacher in a content area (e.g., English, social studies, mathematics, science).

522.1.(2) Science

Objectives, programs, methods in junior and senior high school science.

523.1.(2) Mathematics

Objectives, programs, methods in junior and senior high school mathematics.

524.1.(2) Second Language I

Principles and techniques of current methodology for teaching of French and other modern languages.

530.1.(2) Geography

Objectives, programs, methods in junior and senior high school geography.

531.1.(2) Junior High School Social Studies

This section focuses on history and civics at the junior high level.

534.1.(2) Social Studies: An Interdisciplinary Approach

Objectives, programs, methods for senior high school social studies courses that integrate a variety of fields - geography, history, economics, sociology, political science, etc. The 'local studies' approach is a principal focus.

540.1.(2) English: Secondary High School Level

This methods course will consider objectives and approaches to teaching the English curriculum components of literature, language/grammar, composition, speech/drama/media at the junior and senior high school levels.

541.1.(2) to 549.1.(2) Selected Special Methods

From time to time, the Faculty of Education will offer a selected special methods course which will reflect particular student needs or faculty expertise.

550.1.(2) Introduction to Special Education

Students will examine the nature of and need for special education. Current research findings are analyzed, and teaching approaches typically employed in secondary schools are critically evaluated.

563.1.(2) School and Community: Analysis

This course pursues such questions as: Why have schools emerged as distinct institutions within the community? How have various social institutions (familial, religious, civic, and economic institutions) related to the school over time? What factors impede school-community cooperation? What approaches promise greater cooperation?

564.1.(2) School and Community: Case Studies

Drawing largely on investigations by individual class members or teams, this course examines and seeks lessons from current cases of school-community partnership, such as that with: home, faith group, government, law enforcement agency, interest group, business, health agency, welfare agency, recreational agency, public media.

590.0 Directed Study in Education

[WMS 590.0]

This course provides an opportunity for students to undertake directed study in an educational area or topic relevant to their program if further study in a particular area is desirable or if it is needed to correct deficiencies which exist in their prior course-work program.

591.1.(2) Practice Teaching I

Four weeks practice teaching in Nova Scotia schools. This will normally be done during the first academic term. The details of school experience vary from year to year and are prepared by the Director of Practice Teaching.

592.1.(2) Practice Teaching II

Four weeks practice teaching in Nova Scotia schools. This will normally be done during the second academic term. The details of school experience vary from year to year and are prepared by the Director of Practice Teaching.

Bachelor of Education

General information on the Bachelor of Education program see Section 3. For specific information and instructions, obtain a copy of the Handbook from the secretary in the Faculty of Education.

Though courses are listed independently, the Faculty of Education offers to offer an integrated program.

Courses in education, both at the 500 and 600 level, are reserved for students (a) enrolled in an education program at Saint Mary's University; (b) studying at Saint Mary's University on a letter of permission from another post-secondary institution; or (c) upgrading teaching qualifications. The education courses, therefore, are open to students registered in undergraduate degree, diploma, or certificate programs at Saint Mary's University, nor to students taking courses for general interest.

All full courses are three hours a week, two semesters, except where noted. All half-credit courses are three hours a week, one semester, except where noted.

EDU 0 Philosophy of Education

An existential perspective or a focus on educational relevance, application of the educational situation leads to applications to the curriculum, the school and student-teacher relationships.

EDU 0 Psychology of Education

Study of the nature, equipment, growth, development, evaluation and adjustment of the learner.

EDU 0 Classroom Processes

Course in professional studies designed to provide opportunities to critically examine various aspects of classroom practice: planning, establishing and maintaining control, features of different methodologies, student participation, student-teacher interaction, individualization, grouping procedures, etc.

EDU 0 History of Education

Study of facets of our educational heritage aimed at assisting in the formation of sound educational principles and practices.

EDU 0 Sociology of Education

SOC 306.0]

Prerequisite: SOC 200.0 or enrollment in education.

Study of major sociological approaches (both conceptual and methodological) to education in different societies, with special emphasis on Canadian society. The course will focus on topics such as the relationship between family, education and society; education and equality; the social organization of knowledge; education and social change; the politics of education.

EDU 0 Introduction to Comparative Education

This course is designed to acquaint students with a number of educational systems around the globe, the principal aim being to see Canadian education in a comparative perspective.

EDU 0 Analysis and Application of Educational Concepts

Concepts which identify selected aspects of good teaching will be identified and their application to classroom practice explored. Identification and analysis of these concepts will provide a theoretical

593.1(2) Practice Teaching III

Four weeks practice teaching in Nova Scotia schools. This will normally be done during the April-May-June period. The details of school experience vary from year to year and are prepared by the Director of Practice Teaching.

595.1(2) Orientation to Teaching

Prerequisite: acceptance in Bachelor of Education program.

The following topics will be dealt with: Introduction to Practice Teaching, Ethics and Professional Practice, Legal Issues, School Operation, School Systems, Nova Scotia Department of Education, Nova Scotia Teachers Union, Community Programs and Resources, School Board's Expectations of Teachers, Securing a Teaching Position.

Note: This course will be offered over both semesters, i.e., from September to April.

596.0 Business Education

This course will focus on active learning and teacher leadership in the development of teaching strategies and assessment techniques for a variety of business education subjects. Emphasis will be placed on practical assignments that can be used in the classroom. In addition, the current literature of business education will be reviewed, policies examined and professional issues related to business education explored.

Master of Arts in Education and Master of Education

Note: All full courses are three hours a week, two semesters, except where noted. All half-credit courses are three hours a week, one semester, except where noted.

601.0/602.0 Master of Arts in Education Thesis

All students enrolled in the Master of Arts in Education must complete these two credits "thesis" courses. Each thesis and thesis supervisor must be approved by the Dean. Available only for students enrolled in the Master of Arts in Education degree program.

Students who enroll in "Thesis" courses (EDU 601.0/602.0 or 610.0) should be aware that theses are evaluated and assigned letter grades at Saint Mary's University.

610.0 Master of Education Thesis

The Master of Education thesis, which is optional for students enrolled in the Master of Education degree program, provides students with a unique opportunity to choose, design and complete a significant project in the field of education. Each thesis and thesis supervisor must be approved by the Dean. Available only for students enrolled in the Master of Education degree program.

Students who enroll in "Thesis" courses (EDU 601.0/602.0 or 610.0) should be aware that theses are evaluated and assigned letter grades at Saint Mary's University.

611.0 Research Skills for Practicing Educators

This course is aimed at increasing practicing educators' ability to understand and utilize published educational research and to enable them to design and conduct ad hoc educational research when needed. Topics covered will include the interpretation and use of educational research, construction of tests and questionnaires, making and testing hypotheses, the design of experiments, surveys, case studies, historical and theoretical research and basic statistical operations.

615.0 Media Studies and Education

This course is an introduction to the critical study of media forms and practices, i.e., advertising, television, rock videos, broadcast news, newspaper, film, etc., and the social relations suggested through such forms and practices. Underlying the course is the assumption that media can be treated as educational texts.

616.0 Gender and Education

This course provides an opportunity for students to explore the implications for education of feminist analyses of schooling, curriculum and pedagogy.

617.0 Curriculum Theory and Critical Pedagogy

This course provides a critical perspective on liberal and neo-conservative educational philosophies and traditional schooling practices in the production of unequal social relations. It is also a forum for the examination of possible alternative, pedagogical practices which might address such inequalities.

619.0 Curriculum in Practice

The focus of this course is on what teachers do in classrooms. Emphasis is given to considering ways in which teachers, supervisors and researchers might inquire into classroom life. This process of inquiry is seen as a cornerstone of professional development. (This course was previously entitled: The Examination of Classroom Practice.)

620.0 Curriculum Theory

This course is designed to develop an appreciation of the central and emergent ideas in curriculum theory. Participants will be encouraged to use these ideas in analyzing existing curriculum materials and in designing materials of their own choice. Course material will be related to the Nova Scotia List of Authorized Instructional Materials.

622.1(2) Curriculum in Historical Perspective (General)

These two half-credit courses address historical questions that need to be raised about today's curricula and current attempts at curriculum reform, e.g., origins of today's curricula, justification for departures from earlier practices, changes in the teacher's role in curriculum development. 622.1(2) draws on the history of western education generally, while 623.1(2) draws on the history of education in Nova Scotia, to shed light on current curricular issues.

624.0 Curriculum Development: Science

The course blends practical and theoretical aspects of curriculum design with particular reference to the teaching of science.

625.0 Instructional Media

This course will analyze the effectiveness of audio-visual media on instructional programs. Teachers will learn to understand, select, produce, and use appropriate media and materials to stimulate learning in their specific curricula.

627.0 Classroom Communication

The aim of this course is to improve teaching and learning in all subject classrooms by investigating the process and patterns of oral and written communication as they shape thinking and by planning curricula for the improvement of language skills for learning in every classroom.

629.0 Curriculum Implementation: Science

Teachers will be given the opportunity of examining, rehearsing, implementing and reviewing new science curriculum materials. Concurrently, related pedagogical matters will be explored, e.g., relating science to other subjects, responding to students' interests, grouping students.

633.0 Critical Pedagogy and the English Curriculum

This course utilizes critical educational theories and post-structural theories of language, texts and meanings to evaluate both traditional and popular forms of culture and to explore alternatives for the teaching of English.

635.1(2) Principles of Social Psychology and Education

A seminar course concerned with those aspects of social psychology which are of particular interest to teachers and school administrators. Discussion will focus on such topics as group behavior, leadership, conformity, attitudes and communication. Research findings as they apply to schools will be examined.

636.1(2) The Application of Social Psychology to Education

Students will present seminars on topics in social psychology of interest to them that apply to educational settings.

637.0 Effective Teaching and Personality Development

Prerequisite: permission of instructor.

A seminar course which will utilize biographical techniques to assist students in understanding how the development of personality affects the quality of teaching, along with other school responsibilities. Students will examine the contribution that past and present experience has on classroom and administrative practice.

638.1(2) Principles of Learning Theory in Education

A seminar course dealing with those aspects of learning theory as developed through the findings of experimental psychology that are particularly relevant to classroom teaching. Discussion will focus on such topics as reinforcement, punishment, discrimination, shaping, motivation, group processes, cognition, problem solving, intelligent social development and testing.

631.1(2) The Application of Learning Theory in Education

Prerequisite: EDU 638.1(2).

Students will present seminars on topics in the psychology of learning of interest to them that apply to educational settings.

646.0 to 646.0; 647.1(2) to 649.1(2) Selected Topics Courses

From time to time the Faculty of Education will offer graduate level courses on selected topics which will reflect professional needs and Faculty interests and expertise.

651.1(2) Comparative Education I

Examination of education in selected countries with an introduction to approaches used in the study of comparative education.

651.1(2) Comparative Education II

Examination of specific aspects of educational administration, curriculum, and the classroom practice in selected countries with the aim of suggesting improvements in one's own system.

653.0 Curriculum and Instruction in Teaching English for Specific/Academic Purposes

This course is intended to introduce experienced teachers of English as a second or foreign language to the curriculum and methods used in teaching English for specific purposes (ESP) and English for academic purposes (EAP) to non-native university students. Specific topics include the teaching of listening and notetaking skills using authentic academic lectures, preparation for the TOEFL and IELTS, the cultural dimension of ESP/EAP, program and learner evaluation, ESP/EAP materials development in the content areas, and the teaching of college-level reading, writing, oral, and study skills.

653.0 Language, Culture, and Education

This course focuses on the personal aspects of intercultural communication - what happens when people from different cultures interact face-to-face. Topics include foundational issues of culture and communication including culture shock, adjustment, re-entry shock, verbal and non-verbal communication, gender, race and class, children's ethnic socialization, the status of families as cultural units, and multicultural and anti-racist education. This course emphasizes the development of strategies for successful intercultural communication.

653.0 Linguistics for Teachers

The focus of this course is on the relevance of language in educational settings. It examines the sound, word, sentence and learning systems of English within the context of language teaching. Central concepts of sociolinguistics and psycholinguistics which relate to language in education will also be addressed. The course is intended for teachers of English as a second language but is also appropriate for teachers of English and language arts.

653.0 Curriculum and Instruction in Teaching English as a Second or Foreign Language

Intended for teachers of English as a second or foreign language (ESL/EFL), this course focuses on the curriculum and methods used in teaching English to non-native speakers both in Canada and abroad. Specific topics include the notion of method in foreign language teaching, the evaluation of popular teaching methods, teaching for communication, integrated language teaching, ESL/EFL in the content areas, and individual instruction.

653.0 Principles of Language Acquisition for Education

Intended primarily for teachers of English as a second or foreign language (ESL/EFL), this course focuses on the nature of language acquisition. An overview of first language acquisition, including the second language, is followed by a detailed examination of the variables involved in the acquisition of an additional language by second language learners.

653.0 Educational Administration

The central purpose of this course is to develop understandings, knowledge, and competencies which are useful for educational administrators and other system personnel. The attempt is to meld emerging concepts and principles of modern educational administration with the practical work contexts in which administrators, coordinators, teachers and students find themselves.

662.0 Educational Supervision

The purpose of this course is to develop knowledge and skills which are useful for teachers and educational supervisors in program planning, innovation and evaluation. Supervision is defined here as a planned program for the improvement of teaching and learning. The study of select literature and research is integrated with the perspective of the supervisor's role in program development.

663.1(2) School and Community: Analysis

Described above as EDU 563.1(2). Additional assignments may be required for graduate credit.

664.1(2) School and Community: Case Studies

Described above as EDU 564.1(2). Additional assignments may be required for graduate credit.

666.0 Teaching Critical Thinking

This course examines the role of critical thinking and the teaching of critical thinking in the school. An attempt will be made to determine what critical thinking is and how it is done. Several methods being used in teaching critical thinking will be examined and practiced.

671.0 Social Issues and Education

Each year one or more social issues will be examined in depth as to their relevance to the influence upon educational practice in Nova Scotia. Issues that might be covered in any particular year include: sex differences and sexism, race differences and racism, ability differences and special education, public opinion and censorship, economic development and labour unrest, national identity and regional disparity, Quebec independence and educational opportunities for Acadians, social stability and socio-economic disparity.

673.1(2) Innovations in Education I

A critical examination of selected past innovations in education aimed at isolating aspects of them which might be incorporated in future education programs.

674.1(2) Innovations in Education II

A critical examination of selected current innovations in education intended to develop in the teacher and school administrator an understanding of and an appreciation for significant and promising practices which seem likely to affect the design of future education programs.

675.0 Global Issues and Education

Prerequisite: classroom teaching experience desirable.

This course is designed to enable teachers to bring global perspectives into their classrooms. The course has particular relevance for global and social studies teachers, but also provides ideas in global education across the curriculum. Participants will examine the international context and will seek to identify and resolve fundamental questions.

676.0 Education and Development

This course examines inter-related concepts of education and development. Education is not only the single biggest enterprise in many developing countries but is seen as the vehicle for higher social and economic well-being. This expectation, with its economic, political, social, and cultural implications, is critically examined within the process of development planning and implementation strategies.

680.1(2) The Public School and Religious Education

This course examines the question of whether there are ways in which Nova Scotian public schools can legitimately and effectively contribute to the religious education of students.

681.1(2) The Public School and Values Education

A rationale for values education and a repertoire of methods are derived in this course, through theoretical study and experimentation by the participants in their schools.

682.1(2) The School in a Multi-Faith Society

In this course, the faiths and life-stances of students, teachers and our global society are considered as resources for a richer, more holistic education and enhanced values development.

684.0 Curriculum and Instruction: Social Studies

Prerequisite: certification. (Students should have had an undergraduate course in social studies education.)

A graduate level course designed to give in-service social studies teachers the opportunity of further developing their competencies in the areas of social studies curriculum and instruction. Considerable attention will be given to social inquiry in both its factual and valuative forms, and participants will be required to become familiar with a broad range of teaching approaches and curriculum projects.

685.0 Models of Teaching as Dynamics of Curriculum

Prerequisite: professional teaching experience.

This course takes the perspective that models of teaching reflect modes of thinking that provide the dynamic base for teaching and curriculum development. This course will examine models that provide teachers with structures that enhance creativity and problem solving abilities in students. The aim of the course is to assist teachers in gaining executive control over a number of "personal" models.

686.0 Models of Teaching for Instructional Design

Prerequisite: professional teaching experience.

This course aims to enhance instructional design by developing an expanded repertoire of models of teaching. In a study of the "information-processing" models, particular attention will be placed on models that teach systems of information, concept attainment, and mnemonic techniques. Teachers will be assisted in constructing applications of these models appropriate to their classrooms.

687.0 Computers and the Classroom Teacher

This course will focus on the theory and practice of using computers in the classroom. Students will consider current research and literature regarding the management of computer resources in various classroom settings. The implications of using computers in education and future trends in this area will be studied. Through "hands-on" experience, teachers will develop competence with a variety of educational computer applications. Application programs will include databases, spreadsheets, wordprocessors, graphics and telecomputing. Educational software will be used and evaluated. Student access to a computer is necessary in order to facilitate the completion of assignments and projects.

688.0 Models of Teaching: Developing a Repertoire

Prerequisite: EDU 685.0 or 686.0.

The aim of this course is to increase the educator's expertise in an expanded range of models and to facilitate a paradigm shift in teaching skills. Models from a social context, particularly jurisprudence, will be examined in respect to their theory and application. Workshops will concentrate on networking different models to design programs that respond to a variety of educational needs.

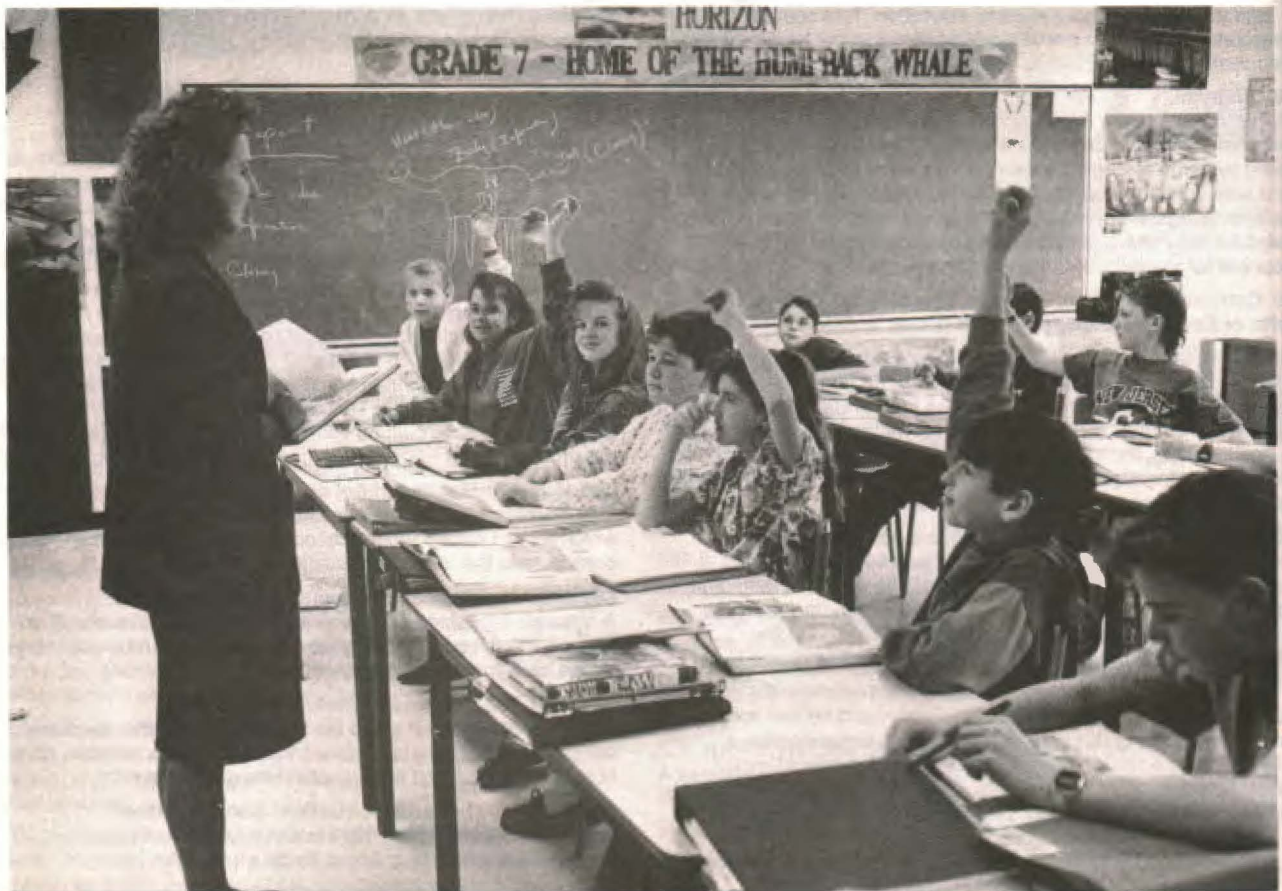
690.1(2) to 693.1(2) Individual Study

Prerequisite: registration is only by permission of professor and Dept. of Education.

The course provides an opportunity for students to undertake self-directed study in a disciplinary area or topic relevant to their program especially in the event a course in the subject is not offered during the current session at Saint Mary's or at another university in the metropolitan area. More than one individual study course may be taken if the syllabus is different. Courses meet by arrangement.

696.0 Business Education

Described above as EDU 596.0. Additional assignments may be required for graduate credit.



The real world of teaching

Engineering (EGN)

Director
Professors
Associate Professors

A. Seaman
P. Boyle, D. Swingler
V. Sastry, V. Tarnawski,
D. Van Dyer

EGN 106.1(2) Engineering Design Graphics

Engineering drawing and sketching. Working drawings, standards and conventional practices. Projection Theory. Orthographic, oblique and isometric drawing and sketching. Introduction to perspective drawing. The engineering design process and its relationship to engineering graphics.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 106.1(2) Design and Descriptive Geometry

Prerequisite: EGN 106.1(2).

Principles and applications of descriptive geometry. Application to problems such as roadway cut and fill, contour maps, design of dams, outcrops of mineral veins, clearances and drawing developments of shapes. An introduction to the role of computers in modeling and analyzing graphical data.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 106.1(2) Technology and Society

This course is designed for students who are not registered in engineering. The course includes: the complaint against technology; the history of technological change; response to technological change; the question of adequate precautions; and the relationship of technology with society.

Classes 3 hrs. a week. 2 semesters.

EGN 203.1(2) Engineering Mechanics (Statics)

Prerequisite: MAT 210.1(2)/211.1(2) (concurrently).

Fundamental concepts and principles of mechanics, statics of particles, equivalent force systems, equilibrium of rigid bodies, analysis of structures, friction, distributed forces, centroids, centre of gravity, moments of inertia.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 203.1(2) Computer Science

Prerequisite: Nova Scotia Grade 12 MAT 441 or MAT 010.1(2)/EGN 106.1(2) and Nova Scotia Grade 12 PHY 441 or PHY 011.0, or equivalents.

Introduction to the digital computer and the computing process. Computer organization, information representation, and matching language. Basic data types, operations and expressions. Structure of algorithms and their flowchart representation. Repetitive calculations and arrays. Structure and control of subprocedures. Program organization. Errors in numerical computation. FORTRAN 77 language.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 203.1(2) Introduction to Microprocessors

Prerequisite: Nova Scotia Grade 12 MAT 441 or MAT 010.1(2)/EGN 106.1(2) and Nova Scotia Grade 12 PHY 441 or PHY 011.0, or equivalents.

This course is geared toward those with a science/technical background who are interested in a fairly detailed introduction to the rapidly expanding world of microprocessors. The underlying aims are to develop some familiarity with microprocessor architecture and digital hardware; to become proficient in Assembler level programming; and to explore the application of program-control input/output operations to the control of simple external devices.

EGN 300.1(2) Dynamics of Particles

Prerequisite: MAT 310.1(2)/311.1(2) (concurrently) and EGN 203.1(2).

The objective of this course is to study the kinematics and kinetics of a particle. The course extends the principles developed in the course on statics. Both scalar and vector methods are used where appropriate. While three-dimensional problems are included, the emphasis is on two-dimensional problems. Topics: Kinematics of a particle, rectilinear and curvilinear motion, relative motion, Newton's Second Law; work and energy methods; impulse and momentum methods.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 300.1(2) Dynamics of Rigid Bodies

Prerequisite: MAT 310.1(2)/311.1(2) (concurrently) and EGN 300.1(2).

This course extends the concepts developed in EGN 300.1(2) to apply to rigid bodies. The emphasis will be on plane motion of rigid bodies. Topics: kinematics of plane motion, kinetics of plane motion; kinematics and kinetics of three-dimensional motion.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 300.1(2) Fluid Mechanics

Prerequisite: MAT 310.1(2)/311.1(2) (concurrently), EGN 203.1(2), and EGN 204.1(2).

Fluid properties, fluid statics and stability. Lagrangian and Eulerian methods of analysis. Application of the control volume of continuity, energy and momentum. Euler's equation of motion, Bernoulli's equation and applications. Linear momentum equation and applications. Dimensional analysis and dynamic similitude. Viscous effects in pipe flow. Introduction to boundary layers and drag on immersed bodies. Flow measurement techniques.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 300.1(2) Mechanics of Deformable Bodies

Prerequisite: MAT 310.1(2)/311.1(2) (concurrently) and EGN 203.1(2).

An introduction to the techniques and theories involved in the analysis of the strength, deformation and stability of structural members and assemblies under the action of forces. Specifically, the object is to develop understanding of the relationships between loads applied to non-rigid bodies and the resulting stresses and strains. Topics include: stress and strain, axially loaded members, torsionally loaded members, flexural loading, combined loadings, column loading and finally an introduction to the Theory of Elasticity.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 300.1(2) Engineering Thermodynamics

Prerequisite: PHY 221.0, MAT 310.1(2)/311.1(2) (concurrently).

Energy and the first law, ideal gas, gas state equation, macroscopic properties of pure substances, properties and state, energy analysis of thermodynamic systems, entropy and the Second Law, thermodynamic relations, consequences and applications of the Second Law to thermodynamic systems.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

EGN 300.1(2) System Dynamics (Electric Circuits)

Prerequisite: PHY 221.0, MAT 310.1(2)/311.1(2) (concurrently).

The objective of this course is to introduce the student to the fundamental laws of electric circuits and circuit parameters, the concept of time-constants, impedances and admittances and general network theorems. Topics include: Kirchoff's Laws; Ohm's law and circuit parameters, resistive networks, loop and node equations; network theorems, super position, Thevenin-Norton; A.C. circuits, sinusoidal response, power, power factor, three-phase circuits; transients in simple circuits.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

English (EGL)

Chairperson, Professor	W. Katz
Professors	C. Byrne, R. Crowther, G. Hallett, M. Larsen, R. MacDonald, K. MacKinnon, R. Perkyns, G. Thomas, T. Whalen
Associate Professors	J. Baker, E. Flynn, M. Harry, D. Pigot, A. Seaman, K. Snyder
Assistant Professors	B. Bartlett, T. Hubel, R. Perkin

Introductory English

EGL 201.1(.2), English Composition, and EGL 202.1(.2), An Introduction to Literature, are designed to meet the various needs of students entering the University from junior or senior matriculation. They satisfy the requirement for an English course stipulated by the Faculties of Arts, Commerce and Science. Composition courses are divided into many sections to ensure as much individual attention to each student as possible. Classes meet three hours per week.

Advanced Courses

The standard prerequisites for entrance to courses above the 200 level are a pass in EGL 201.1(.2) and 202.1(.2) or permission of the Department. For additional prerequisites in some courses, see the individual course descriptions.

All advanced courses meet three hours per week.

The Major Program

All English major and honors students will be assigned members of faculty as advisors with whom they can consult on all matters relating to their degree programs. Students who declare a major in English, or a double major in English and another subject area, should select their courses in consultation with the departmental advisors.

Students wishing to major in English must complete, in addition to EGL 201.1(.2), Composition, and EGL 202.1(.2), Introduction to Literature, six additional credits (6.0). In the second year, they must complete the equivalent of three credits (3.0) at the 300 level, at least two credits (2.0) of which must be chosen from among the following courses:

308.1(.2) or 311.1(.2) Development of English Prose Style, Modern English Language;
323.1(.2) or 324.1(.2) Practical Criticism, Introduction to Theory;
341.1(.2) or 342.1(.2) Introduction to Drama I, Introduction to Drama II;
391.1(.2) or 392.1(.2) Study of Short Fiction, Study of the Novel;
393.1(.2) Study of Poetry.

What this means is that the student will complete four half-credit courses (2.0 credits) within the areas of linguistics, poetics, drama and narrative fiction, and one credit (1.0) in any other area available at the 300 level. A student must complete the sequence with an average grade of C or better in order to continue in the major program.

In the third year, students will complete a further three credits (3.0) at the 400 level.

The Minor Program

Students may declare a minor in English, creative writing, or linguistics.

Students who declare a minor in creative writing must take at least two credits (2.0) in creative writing in at least two of the three genres offered (fiction, poetry and drama). Students are also required to take two more English credits (2.0) beyond the 200 level.

Students who wish to major in English and minor in creative writing or linguistics must take 8.0 English courses above the 200 level and fulfil the requirements of both programs. Further details on the linguistics minor can be obtained from the Chairperson. Dr. Brian Bartlett is the Creative Writing Coordinator.

The Honors Program

All prospective honors students should refer to the section of this Calendar pertaining to honors degrees and apply to the Registrar for enrollment in honors after their first year in the University.

While students are encouraged to enroll formally in honors as early as possible, those who apply later will be considered if they have the requisite minimum 3.00 average in their English courses.

Honors students must complete the requirements listed below. A slight adjustment in the honors English requirements will be made to those in a combined honors program.

Honors in English consists of eleven credits (11.0).

Students who seek admission to the honors program must satisfy the general requirements set out by the Faculty of Arts.

EGL 201.1(.2) and EGL 202.1(.2) Composition, Introduction to Literature

Three credits (3.0) at the 300 level. These should include two credits (2.0) from the following list of core courses:

EGL 308.1(.2) or EGL 311.1(.2) Development of English Prose Style, Modern English Language

EGL 323.1(.2) or EGL 324.1(.2) Practical Criticism, Introduction to Theory

EGL 341.1(.2) or EGL 342.1(.2) Introduction to Drama I, Introduction to Drama II

EGL 391.1(.2) or EGL 392.1(.2) Study of Short Fiction, Study of the Novel

EGL 393.1(.2) Study of Poetry;

plus *one* more credit (1.0) at the 300 level.

A further six credits (6.0) at the 400 level or higher.

In choosing their 400-level courses, students must satisfy the following area requirements:

(i) Medieval and Renaissance: either EGL 404.0 or EGL 406.0;

(ii) Shakespeare: any combination of two (2) of EGL 444.1(.2), EGL 445.1(.2), EGL 446.1(.2), EGL 447.1(.2);

(iii) 18th Century and Romantics: at least one of EGL 408.1(.2), EGL 412.0, EGL 414.0, EGL 416.0;

(iv) 19th Century: at least one of EGL 409.1(.2), EGL 418.0, EGL 420.0, EGL 430.0, EGL 448.1(.2), EGL 449.1(.2);

(v) 20th Century: at least one of EGL 424.0, EGL 426.0, EGL 428.0, EGL 432.0, EGL 440.0, EGL 450.1(.2), EGL 451.1(.2), EGL 460.0;

(vi) EGL 550.0 Special Author, EGL 551.0 Special Subject, or EGL 552.0 Honors Seminar.

Prospective honors students must consult with the Chairperson about admission to the program. Students must maintain a minimum quality point average of B (3.00) in their English courses.

Note: In the cases where courses have been renumbered or where a full course has been split into two half courses, a student who received a credit for the original course is not entitled to repeat the course in its new format for an additional credit. Students who received credit for EGL 400.0 are not entitled to receive credit for EGL 393.1(.2).

201.1(.2) English Composition

A composition course designed to provide a thorough review of the basic principles of effective writing. The focus is on issues of grammar, rhetoric and logic in student writing and in examples from established practice. Some sections of this course are computer assisted.

202.1(.2) An Introduction to Literature

This course examines a variety of literary forms through the study of selected essays, fiction, drama, and poetry.

250.1(.2) Business English

Prerequisite: EGL 201.1(.2) and 202.1(.2).

Beginning with a review of English grammar, this course provides practice in writing clear, straightforward prose, in organizing ideas effectively and in dealing with the many forms of business writing - resumes, memos, letters and reports.

Note: Students who have previously earned credit for COM 293.1(.2) may not also earn credit for EGL 250.1(.2) and vice versa.

300.1, 301.2, 302.1, 303.2 Selected Topics

The subject matter of particular half-credit courses will be announced from time to time. These half-credit courses are designed to treat at an intermediate level authors and topics not dealt with in the other 300-level courses.

306.0 Cross-listed as CLA 306.0 The Epic**306.1(2) Development of English Prose Style**

The course offers a close study of very short selections of prose dating from 1500 to the present. The passages will be studied in chronological order, with a view to observing developments in prose style in each period.

311.1(2) Modern English Language

The course will examine the nature of modern English with reference to its syntax, grammar and vocabulary. Traditional grammar will be reviewed, and modern approaches to grammar and lexicography will be discussed.

321.1(2) Modern English Language in Canada

The course examines the background of Canadian English, the varieties which mark it as distinct from British and American English, and the regional varieties found within it, with emphasis on the speech of the Atlantic Provinces.

330.0 Narrative In Fiction and Film

A study of a number of important works of fiction that have been successfully adapted to film. Students consider the specific properties that are unique to each medium and the implications (formal, thematic, social and political) involved in translating from page to screen.

351.1(2) Masterpieces of Western Literature (Pre-Renaissance)

A historical survey of the major works of Western civilization from classical Greece to the Renaissance.

351.1(2) Masterpieces of Western Literature (Post-Renaissance)

A historical survey of the major works of Western civilization from the Renaissance to the 20th century.

370.0 Writing by Women**[WMS 317.0]**

A course designed to examine some of the theoretical and practical concerns presented by women's writing. Both the nature of a woman's tradition in literature and the scope and method of feminist literary criticism will be studied. The emphasis will be on literature of the 18th, 19th, and 20th centuries, but earlier writings will be considered as well.

381.1(2) The Writer and Nature

Beginning from 18th century meticulous observers of the natural world through the Romantic poets to modern writers who envision an apocalyptically threatened environment, this course seeks to trace shifts in literary approaches to nature within different English-speaking traditions and to follow the changing perceptions of the place of the human being within the natural landscape.

381.1(2) The Literature of Everyday Life

Our everyday life is extensively mediated by newspapers and advertising as well as by publicity and propaganda of various kinds. Many people's imaginative lives are shaped and their opinions formed by a literature designed to reach those with minimal reading skills. This course will apply the tools of literary analysis to the forms of literature which surround most of us for most of the time and will examine the cultural place of reading in the late 20th century.

391.1(2) Advanced Composition

A course in the writing and analyzing of expository prose. Emphasis will be placed on the use and understanding of the principal varieties of rhetorical modes and devices. This course is intended for those who are seriously interested in improving their writing.

Note: Students who have previously earned credit for EGL 321.1(2) may not also earn credit for EGL 322.0 and vice versa.

392.0 Advanced Composition (Computer Assisted)

Additional prerequisite: typing skills.

The course introduces students to microcomputer word processing as a basic tool of composing and editing. Its purpose is to improve writing skills through the critical analysis and sensitive editing of the writing of peers and published authors. Emphasis is placed on the understanding and use of the principal varieties of rhetorical modes and devices.

Note: Students who have previously earned credit for EGL 322.0 may not also earn credit for EGL 321.1(2) and vice versa.

393.1(2) Introduction to the Practice of Criticism

This course provides an introduction to the discipline of literary criticism through extensive exercises in the practical criticism of selected extracts of poetry and prose.

324.1(2) Introduction to the Theory of Criticism

This course provides an introduction to the major issues and theoretical approaches in the discipline of literary criticism. The main emphasis will be on reading selected critical texts from Plato to the present day.

325.0 Cross-listed as WMS 318.0 Language and Gender**331.1(2) History of Children's Literature**

A survey of children's literature to the end of the nineteenth century. The literature will be read and understood in its historical context. The emphasis will be on the works generally considered classics of children's literature.

334.0 The Literature of Modern Ireland**[IRS 334.0]**

A study of the contradictions and fissures in modern Ireland as these are seen through the imagination of her writers. The writers studied will include W. B. Yeats, J. M. Synge, G. B. Shaw, Sean O'Casey, Maurice O'Sullivan, Liam O'Flaherty, James Joyce, Patrick Kavanaugh, Padraic Colum, Sean O'Faolain, James Stephens, J. B. Kane and Brian Friel.

341.1(2) Introduction to Drama I

This course is a survey of representative plays from ancient Greece to 1700.

342.1(2) Introduction to Drama II

This course is a survey of representative plays from 1700 to the present.

351.1(2) Contemporary American Fiction

A study of American fiction since World War II. Authors to be studied are chosen partly because they interpret some important aspects of the American national experience during this period and partly because they raise basic questions about the aesthetics of fiction.

356.1(2) The Development of Science Fiction to the Golden Age

The course will explore visionary and speculative literature ranging from early nineteenth century speculative fictions up to and including the so-called "Golden Age" of Science Fiction. Authors such as the following will be read: M. Shelley, Poe, Wells, Stapledon, Huxley, Orwell, Bradbury, Clarke, Heinlein, Asimov, Vonnegut and Reynolds.

357.1(2) Recent Science Fiction

This course will look at the recent expansion of the genre through experiments with form and subject matter, and the influence of such movements as New Wave and Cyberpunk. Authors to be studied will include such writers as Aldiss, Ballard, Brunner, Delaney, Ellison, Gibson, Haldeman, Herbert, LeGuin, Spinrad, Sterling, and Tiptree.

361.1(2) World Literature In English: Selected Focus

This course will focus on the development of English-language literature within the confines of a single country or geographically-proximate countries other than England, Canada and the U.S.

365.0 The Modern Novella

A course designed to introduce the student to a wide range of short novels which illustrate both the rich diversity and the fundamental unity of concern which characterize the modern imagination and cultural consciousness.

371.1(2) Contemporary Canadian Fiction

This course offers a study of Canadian prose fiction of the period from 1965 to the present.

372.1(2) Contemporary Canadian Poetry

This course offers a study of Canadian poetry of the period from 1965 to the present.

375.1(2) Writing Fiction I

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

A course in the many techniques, skills, goals and problems in writing fiction. The emphasis is on analyzing student stories in workshops, but lectures and writing exercises may also be included.

376.1(2) Writing Fiction II

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

This course encourages students to experiment with literary techniques and to develop their own writing style. Students will participate in workshops, read widely in the genre of the short story and be encouraged to rethink and revise their own fiction.

380.0 Literature of Atlantic Canada

An examination of the literature and literary background of Atlantic Canada. Emphasis in the first semester is on the 19th and early 20th centuries; in the second semester it is on contemporary writing.

381.0 Writing Poetry

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

This course provides students with an opportunity to write and workshop their own poetry. The great range of choices available to poets in terms of form, rhythm, voice and diction will be explored. The emphasis will be on student submissions, but the work of published poets will also be discussed.

382.0 Writing Plays

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

This course provides students with the opportunity to write and workshop their own plays. The literary aspects of drama, as well as its practical and production aspects, will be explored. Though the course focuses on student efforts, the works of classic and contemporary playwrights may also be discussed.

391.1.(2) The Study of Short Fiction

The course is designed to introduce students to short fiction as well as to the analytical concepts necessary for its critical appreciation and judgement.

392.1.(2) The Study of the Novel

This course is designed to introduce students to the novel in English as well as to the analytical concepts necessary for its critical appreciation and judgement.

393.1.(2) The Study of Poetry

Methods and problems in poetics and the reading and analysis of English poetry for the purpose of preparing students for advanced work.

395.0 An Introduction to Shakespeare

This course is designed primarily for non-English majors with an interest in Shakespeare. It studies in detail representative selections from the comedies, histories, tragedies, problem plays and last plays.

402.0 History of the English Language

A survey of the development of the English language from its earliest stages to the present. Representative texts are used from each period so that students can acquire first-hand knowledge of the successive change in syntax, grammar and vocabulary.

404.0 Chaucer and the 14th Century

A course dealing primarily with the poetry of Chaucer which is studied in the original Middle English. Students are required to do outside reading on literary influences and on life in 14th century England.

406.0 The Poetry and Prose of the English Renaissance

This course is concerned with the development of English prose and poetry between the years 1550 and 1620.

408.1.(2) Drama and Society - Restoration to 18th Century

This course gives particular attention to the comedy of manners and its principal exponents such as Etherege, Wycherley, Congreve and Sheridan. Also studied are sentimental comedy, heroic and domestic tragedy, and the ballad opera, as well as the way social and political development affected the theatre.

409.1.(2) Drama and Society in the 19th Century

The study of drama and theatre in the Romantic era in relation to changing political and social conditions. The study includes melodrama, the influence of the actor-managers and the move towards realism. Also studied is the impact of European drama, particularly by Ibsen, on Shaw, Pinero and other British dramatists.

412.0 Restoration and 18th Century Literature

This course focuses on the various forms of English poetry and prose between 1660 and 1800. It includes poets such as Dryden, Finch, Pope, and Gray, and writers of prose such as Swift, Johnson, Burney and Boswell.

414.0 The Novel: Defoe to Austen

This course surveys the origin and development of the English novel during the 18th century. It includes the study of such novelists as Defoe, Fielding, Richardson, Smollett, Sterne, Goldsmith and Austen.

416.0 The Romantic Movement

This course studies the origins and development of the English Romantic movement. Major emphasis will be placed on the work of Blake, Wordsworth, Coleridge, Shelley, Keats and Byron.

417.1.(2) Feminist Literary Theory

[WMS 417.1.(2)]

Prerequisite: EGL 201.1.(2) and 202.1.(2).

This course will engage students in a study of feminist literary theory. Some of the most influential theorists in this area will be analyzed as well as the dominant cultural systems to which they have responded. Students will not be required to have any prior knowledge of the theory.

418.0 The 19th Century Novel

A study of the English novel in the social and historical context of the 19th century. Attention will be given to technical and stylistic developments, recurrent themes, major conventions, and various other concerns shared by novelists such as Austen, the Brontës, Thackeray, Dickens, Eliot, Hardy and James.

420.0 Victorian Poetry and Prose

The course is devoted to a critical study of the work of such representative poets as Tennyson, Browning, Arnold, Morris, Swinburne, Hopkins, Kipling, Hardy and Housman.

424.0 20th Century American Literature

A study of significant practitioners of 20th century American fiction and poetry. Important intellectual and cultural trends will be considered as they emerge from a close study of the texts.

425.0 Biography and Autobiography

A course focusing on the special features and problems of biographical writing such as subjectivity, bias, historical perspective and the problems of evidence. Students will be expected to read widely from an extensive reading list.

426.0 The Modern Novel

A close critical analysis of representative works of a number of prominent late 19th and 20th century novelists in the light of certain literary, cultural, socio-political and philosophic tendencies which have exercised a decisive influence in the formation of the modern imagination.

428.0 20th Century Poetry

A study of 20th century poetry in English. British, American and Canadian poetry of the Modernist period and the post-World War II period is given special emphasis.

430.0 Scottish Literary Traditions

A selective examination of Scottish literary traditions from the late Middle Ages to the present. As required for particular writers, attention will also be paid to the Scots language and to cultural background.

432.0 The Development of English Canadian Literature

This course deals with the literature of Canada preceding the contemporary period (1965 to the present). A variety of novelists and poets influential in the formation of Canadian literary tradition are examined.

435.1.(2) 20th Century European Drama

A study of the principal European dramatists and theatre movements in the present century with emphasis on the ones that have most influenced drama written in English. Reference is made to works by such dramatists as Ibsen, Strindberg, Chekhov, Pirandello, Brecht, Beckett and Ionesco.

437.1.(2) Canadian Drama

This course traces the beginnings and follows the development of drama and theatre in Canada. It includes the study of works by Davies, Coulter, Reaney, Ryga, French and by Gelinis and Tremblay in translation.

438.1.(2) American Drama

This course traces the origins and principal developments of drama in the United States. Special reference is made to the work of leading dramatists, including O'Neill, Wilder, Miller, Williams, Albee, Wilson and Shepard.

440.0 Theory and Practice of Criticism

A general survey of the intellectual background and development of postmodernism as it emerges in literary and cultural criticism and theory. The main areas of investigation involve such dominant postmodernist problematics as literary and philosophical deconstruction, the critique of ideology, Lacanian psychoanalysis and the construction of subject, allegory and the sublime.

41.1.(2) The Irish Short Story**[WMS 441.1.(2)]**

This course will examine the short story as a major form in the fiction (English) of Ireland, tracing its development from the Irish folktale to the sophisticated modern stories of internationally read practitioners such as Joyce, O'Connor, O'Faolain and Lavin.

42.1.(2) Irish Drama**[WMS 442.1.(2)]**

Irish dramatists from Farquhar and Sheridan to Shaw, O'Casey and Shawcross will be studied from the point of view both of their contribution to theatre in the English-speaking world and of their special Anglo-Irish or native Irish cultural background.

43.1.(2) Irish Poetry**[WMS 443.1.(2)]**

Irish poets and poetry from ancient to modern times will be the subject matter of this course. Special emphasis will be placed on poets of the modern period from Yeats to Heaney, and the course will concentrate on the interaction of the patterns of Irish Gaelic sounds and images with those drawn from English language and culture.

44.1.(2) Shakespeare I

The subject of this course is Shakespeare's comedies and romances.

45.1.(2) Shakespeare II

The subject of this course is Shakespeare's history plays and problem plays.

46.1.(2) Shakespeare III

The subject of this course is Shakespeare's tragedies.

47.1.(2) Shakespeare's Contemporaries

This course studies selected plays by such writers as Kyd, Marlowe, Webster, Jonson, Beaumont and Fletcher and Webster.

48.1.(2) Nineteenth Century American Literature from Emerson to Melville

This course is a survey of the major authors and works of American literature during the first half of the nineteenth century. Special emphasis will be given to Emerson, Thoreau, Hawthorne and Melville. Some attempt will be made to examine the historical and cultural influences exerted on the literature by the American Revolution and the Puritan sensibility.

49.1.(2) Nineteenth Century American Literature from Whitman to James

This course is a survey of the major authors and works of American literature during the second half of the nineteenth century. Special emphasis will be given to Whitman, Dickinson, Twain and James. It will attempt to give the student a sense of the developing voices of the post-Civil War culture.

50.1.(2) British Drama 1900-1955

The focus of this course is the dominant role of G. B. Shaw in the theatre of the first three decades of the 20th Century. Other playwrights studied include Granville Barker, Galsworthy, Barrie, Shawcross, Rattigan, Eliot and Fry.

51.1.(2) British Drama since 1956

The "overnight revolution" in British Theatre in 1956 produced massive waves of outstanding dramatists who will be studied in this course, including Osborne, Pinter, Arden, Bond, Stoppard, Caryl Churchill and Shaffer. The work of three major companies which were set up to promote them, the Royal Court Theatre, the Royal Shakespeare Company and the National Theatre Company, will also be featured.

460.0 Postcolonial Literature: An Overview

This course is designed to introduce students to postcolonial literature. Works of fiction to be studied will be from the Caribbean, Africa, New Zealand, India, Australia, and elsewhere, examining them within their political, historical and cultural contexts.

Classes 2 hrs. and group presentations 1 hr. a week. 2 semesters.

461.1.(2) Polemical Writing by Women**[WMS 461.1.(2)]**

Women writers were involved in public discourse and debate for at least two centuries before winning the right to formal political participation. The course will examine the literary texts (e.g., Harriet Beecher Stowe's *Uncle Tom's Cabin*; Virginia Woolf's *Three Guineas*) generated by women about such issues as slavery, imperialism, women's suffrage, feminism, militarism and ecology.

475.0 Writing Fiction - Advanced

Additional prerequisite: written permission of Creative Writing Coordinator.

A course designed for students with some experience in writing fiction. Many aspects of the writer's craft, from the germination of a story to the polishing of a final draft, will be explored in workshops. Students who have not completed either EGL 375.1(.2) or 376.1(.2) will be asked to submit a sample portfolio of their work before registration.

550.0 Special Author**[WMS 550.0]**

Additional prerequisite: enrollment in the English honors program or special recommendation of the Department.

This course provides the opportunity to study a particular author in considerable depth and detail, and requires some measure of independence and initiative in the student.

Tutorials by arrangement with supervisor. 2 semesters.

551.0 Special Subject**[WMS 551.0]**

Additional prerequisite: enrollment in the English honors program or special recommendation of the Department.

This course provides the opportunity to study a particular subject or period in considerable depth and detail, and will require some measure of independence and initiative in the student.

Tutorials by arrangement with supervisor. 2 semesters.

552.0 Honors Seminar

Topics chosen will be of a general nature in order to permit the representation of a diversity of historical periods, genres, and the various literary traditions of the English-speaking world. Students will be required to present papers on aspects of the chosen topic, and members of the English Department will conduct seminars in their areas of expertise.

English As A Second Language (ESL)

Course descriptions for this subject area are found in the Modern Languages and Classics Department section of this Calendar.

Environmental Studies (ENV)

Director

Dr. Terence Day

Note: This program is subject to approval by the Maritime Provinces Higher Education Commission.

General Information

The program of study leading to a Bachelor of Science in Environmental Studies is a rigorous multidisciplinary program combining basic sciences, management, social sciences and humanities, which will provide students with the necessary academic preparation to understand environmental and resource-oriented issues and to prepare them to contribute positively to an environmentally sound future. Graduates of the honors program will be qualified for admission to graduate programs in Environmental Studies. Graduate programs in other areas of science may require a different background than that offered by the Bachelor of Science in Environmental Studies.

Students pursuing the program leading to the Bachelor of Science in Environmental Studies may elect the honors option. Students may enroll in the Co-operative Education option provided the minimum requirements specified in the Co-operative Education section of this Calendar are met. To satisfy the Co-operative Education option, the student must complete a minimum of four work terms interspersed with the academic semesters.

Admission Requirements

To be admitted to the Bachelor of Science program in Environmental Studies, students must have completed five Nova Scotia Grade 12 subjects (or equivalent) including: English 441, Mathematics 441, Biology 441, Chemistry 441, and one other 441 subject with an average of at least 65 percent.

Program of Study

1. Subject to the regulations set forth in this Calendar, students must complete the equivalent of twenty credits (20.0).

2. The twenty credits (20.0) of the four-year (five years if Co-op option) program of study consist of:

- a. ten (10.0) required credits (Group A);
- b. three credits (3.0) selected from a list of recommended arts, social science and commerce courses (Group B); and
- c. five credits (5.0) selected from a list of recommended science courses (Group C).

The remaining two credits (2.0) may be selected from other disciplines.

3. The choice of courses will be made in consultation with the Program Director (or designate) who will approve the student's proposed program.

4. For the Bachelor of Science (Honors) degree in Environmental Studies, students must obtain a grade of at least C (2.00 quality points) in every course in Groups A and C; and an average of at least B (3.00 quality points) for the same courses. At least two of the Group C courses must be at the 400 level or higher. They must also complete an original research project.

5. Group A: Required Courses

BIO 200.0	Principles of Biology
CHE 202.0	General Chemistry for Life Sciences
ECO 201.1(.2)	Principles of Economics: Micro
ECO 363.1(.2)	Environmental Economics
EGL 201.1(.2)	English Composition
EGL 202.1(.2)	An Introduction to Literature
ENV 300.1(.2)	Introduction to Environmental Science
ENV 499.0	Seminar in Environmental Science
GEO 200.0	Introduction to Earth Science
GPY 201.1(.2)	Introduction to the Physical Environment
GPY 202.1(.2)	The Human Use of the Environment

One of the following:

MAT 207.1(.2)	Survey of Statistics
GPY 326.1(.2)	Statistical Methods for Geographers
MSC 207.1(.2)	Introductory Statistics for Commerce

One credit (1.0) in the following:

MAT 210.1(.2)	Introductory Calculus I
MAT 211.1(.2)	Introductory Calculus II
CSC 226.1(.2)	Introduction to Computer Programming I
CSC 227.1(.2)	Introduction to Computer Programming II

One of the following:

POL 330.0	Introduction to Public Administration
POL 445.0	Introduction to Public Policy

Students who elect to take MAT 210.1(.2)/211.1(.2) will be required to take MSC 225.1(.2) (Introduction to Computers) as one of the Group C courses.

Honors students must also complete an original research project (ENV 599.0 Honors Research Project) under the supervision of a member of the Atlantic Canada Centre for Environmental Science. Each proposed project will be approved by the Centre. On completion of the project, the student will be required to submit a formal report and to present the work orally.

Students electing the Co-op option within the program will make formal written reports on the completion of each work term, and satisfy all normal Co-op requirements.

6. **Group B:** Students must take at least three credits (3.0) from the following list. In special circumstances, courses not listed may be substituted with permission of the Program Director.

ECO 202.1(.2)	Principles of Economics: Macro
ECO 362.1(.2)	Natural Resource Economics
EGL 318.1(.2)	The Writer and Nature
GPY 319.0	Cultural Ecology
GPY 331.1(.2)	Geography of Natural Resources and Environment
HIS 307.0	Science in the West Since 1500 A.D.
IDS 470.1(.2)	Environment and Development
MSC 301.1(.2)	Operations Research
PHI 302.0	Ethics
PHI 352.1(.2)	Philosophy of Science
REL 347.1(.2)	Ecology and Religion
SOC 310.1(.2)	Society and the Environment
SOC 453.0	Citizen Participation in Community Planning
FRE XXX.X	maximum of 1.0 credit

7. **Group C:** Students must take at least five credits (5.0) from the following list. In special circumstances, courses not listed may be substituted with permission of the Program Director. In addition, where appropriate and where there is little duplication in course content, alternative courses in Group A may be included in Group C.

BIO 310.0	Ecology
BIO 319.0	Diversity of Non-Vertebrate Animals
BIO 403.1(.2)	Plant Taxonomy
BIO 405.0	Biology of Fishes
BIO 413.1(.2)	Introduction to Microbiology
BIO 414.1(.2)	Environmental Microbiology
BIO 447.1(.2)	Aquatic Biology in Bermuda
BIO 448.1(.2)	Biology Field Course
BIO 510.0	The Theory of Ecosystems
CHE 332.1(.2)	Introductory Analytical Chemistry: Wet Methods
CHE 333.1(.2)	Introductory Analytical Chemistry: Instrumental Methods
CHE 344.1(.2)	Organic Chemistry I
CHE 346.1(.2)	Organic Chemistry IIB
CHE 373.1(.2)	Introduction to Environmental Chemistry I
CHE 374.1(.2)	Introduction to Environmental Chemistry II
CHE 432.1(.2)	Instrumental Analysis I
CHE 433.1(.2)	Instrumental Analysis II
CHE 451.1(.2)	Introductory Biochemistry
CHE 452.1(.2)	Biochemistry: Metabolism and Molecular Biology
ENV 599.0	Honors Research Project
GPY 303.1(.2)	Natural Environments
GPY 304.1(.2)	Environmental Management
GPY 313.1(.2)	Geomorphology [GEO 373.1(.2)]
GPY 314.0	The Oceans: A Physical Geography
GPY 324.0	Ocean Use and Management
GPY 336.1(.2)	Principles of Cartography

GPY 356.1(.2)	Remote Sensing of the Environment
GPY 376.1(.2)	Geographical Information Systems (Raster)
GPY 413.1(.2)	Coastal Geomorphology
GPY 414.1(.2)	Coastal Management
GPY 423.1(.2)	Glacial Geomorphology [GEO 475.1(.2)]
GPY 443.1(.2)	Periglacial Geomorphology [GEO 476.1(.2)]
GPY 476.1(.2)	Geographical Information Systems (Vector)
GEO 325.1(.2)	Stratigraphy and Sedimentation [GPY 325.1(.2)]
GEO 414.1(.2)	Global Geology
GEO 441.1(.2)	Mineral Resources of the Earth
GEO 442.1(.2)	Economic Mineral Deposits
GEO 453.1(.2)	Principles of Geochemistry
GEO 454.1(.2)	Applied Geochemistry
GEO 465.1(.2)	Sedimentology [GPY 465.1(.2)]
GEO 466.1(.2)	Petroleum Geology
MAT 210.1(.2)	Introductory Calculus I
MAT 211.1(.2)	Introductory Calculus II
MSC 225.1(.2)	Introduction to Computers
PHY 205.0	University Physics

300.1(.2) Introduction to Environmental Science

This course describes the application of physical, life and social sciences to an understanding of the environment. The course will include a survey of environmental problems, solutions and strategies for sustainable development.

Seminar 3 hrs. a week. 1 semester.

499.0 Seminar in Environmental Science

Prerequisite: ENV 300.1(.2).

The course deals with selected topics in environmental science. Specific topics vary depending on current issues, new developments, availability of speakers and the interests of students and instructor.

Seminar 3 hrs. a week. 2 semesters.

599.0 Honors Research Project

Prerequisite: honors standing in Environmental Studies.

Honors students will work with a research advisor who will guide the students in the formulation of research proposals, the methodology to be followed during the course of the research, and in the analysis and write-up of the research findings. The thesis will also be presented orally.

Lab 6 hrs. (minimum) per week. 2 semesters.

- 1. **Program Structure.** With the exception of ENV 499.0 (Seminar in Environmental Studies), students are expected to complete most of the Group A courses within the first two years of the program.
- 2. Each student will have an assigned Faculty advisor who will assist the student on course selection from the Group B and C lists and will approve the program selected by the student.
- 3. Alternative program structures are possible, subject to the approval of the Program Director.



An environment worth protecting

Executive Master of Business Administration (EMB)

Director

David H. Bateman

A complete description of this graduate program is found in Section 3 of this Calendar.

The following courses are available only to students registered in the Executive Master of Business Administration Program.

Year 1: Fall Semester

EMB 511.1; 512.1; 514.1; and 522.1.

Winter Semester

EMB 513.2; 521.2; 523.2; and 524.2.

511.1(2) Managerial and Financial Accounting

This course is designed to improve students' decision-making abilities as managers using accounting information within organizations, and as managers interpreting and using externally published financial statements from other organizations. The use of accounting systems for planning of activities and control of operations with emphasis on the human behavioral aspects will be studied. The course will also develop and further the student's knowledge of accounting techniques and principles and their understanding of accounting data.

512.1(2) Organizational Behavior and Theory

This course is concerned with the behavior and attitudes of individuals and groups in organizations and with how organizations are structured to achieve their goals. The course relies heavily on the contributions of psychology, sociology and anthropology, and strong emphasis is placed in those management decisions that contribute to organizational effectiveness. Topics to be covered typically include leadership, motivation, job design reward systems, control systems, group-dynamics, communication and decision-making, designing jobs and reward systems, evaluating organizational effectiveness, conflict management, organizational culture, and change.

513.1(2) Marketing Management

The purpose of the course is to provide a systematic coverage of the marketing management, locally, nationally and globally - its major concepts, methods and models. In addition, the perspective of the course extends from the marketing concepts to marketing strategy: marketing's strategic role is emphasized, and the perspectives of the marketing mix are analyzed from a strategic angle. The course will, through case studies and class exercises, encourage familiarity with a range of concepts and techniques which can be used to develop effective strategies and plans.

514.1(2) Business Research Methods

This course covers the basic topics related to the collection, analysis and presentation of data for business decision-making. Topics include elementary notions of research and theory construction and statistical inferential, sample design, regression and correlation, model building, time series and index, and forecasting. The use of primary and secondary data sources will be addressed. The presentation of research results will emphasize the fundamentals of both written and oral communication techniques for effective presentation of business data/research results.

521.1(2) Corporate Finance

The objective of the course is to provide an integrated view of the financing and investment decision of the firm by focusing on how the value of a company is affected by the trade-offs between the returns and risks inherent in all financial decisions. Topics include agency theory signalling and financial compensation schemes and their impact on financial decision making. Students should complete the course having an in-depth appreciation of the nature of the financial markets within which the firm operates together with a solid working knowledge of a wide variety of financial decision techniques.

522.1(2) Managerial Economics

This course is designed to provide a foundation of economic understanding for use in managerial decision-making. The major microeconomic topics covered include demand, supply and pricing strategy under different market structures. The theory of demand and the concept of elasticity are developed with emphasis placed on interpreting the empirical estimates of these concepts. Production and cost in both the short run and long run are discussed, and the importance of these factors for managerial decision-making is carefully considered. The appropriate firm pricing policy under

perfect competition, monopoly, monopolistic competition and oligopoly is covered as well.

523.1(2) Operations Management

This course provides the student with a foundation in the concepts and techniques of operations management, especially the methods used for the planning, organizing and scheduling of operations in both manufacturing and other institutional settings. Students will be introduced to analytic decision making through such techniques as linear programming, decision analysis and simulation. Applications include inventory control, project management, production scheduling and resource allocation.

524.1(2) Human Resource Management

This course is about hiring and managing individuals at work. In broad terms, this course exposes a student to the theory and practice of procuring, developing, and utilizing the human resources of an organization. It will help that student to identify several individual, organizational, and environmental factors that influence people at work and which have a decisive influence on an organization's human resource policies. Specific topics dealt with will include: human resource planning, job analysis, recruitment and selection, orientation, training and development, performance appraisal, compensation management, elements of industrial relations, and quality of work-life improvement strategies.

Year 2: Fall and Winter Semester

631.1(2) Management Information Systems

Information Systems play a critical role in the success of most enterprises. Managing the corporate information systems function has become very challenging, with rapidly changing issues and approaches, and greater requirement for information systems strategy to be aligned with business strategy. This course addresses the major management topics associated with managing the MIS function. Topics include user satisfaction and demand for information, managing service quality of MIS, the successful management of technology, the relationship between automation and productivity, data security, and justification of the MIS budget. Management issues in emerging topics such as office systems and microcomputers are also discussed.

632.1(2) International Capital Markets

The objective of this course is to understand the global nature of financial markets and the role of international banking. The course commences with a recapitulation of the make-up of a developed market financial system. Particular attention will be focused on the foreign exchange market. The interrelationships within the domestic system and its interdependence with the "world" system are illustrated and the apparent robustness of the system to withstand shocks is assessed, as well as its ability to innovate in the financial claims it can offer and the financial centres that have developed.

633.1(2) Policy I - Business Strategy

Course objectives: This course is designed to develop a general management perspective within the context of current strategic management concepts and techniques. The concept of strategy will be used as the theme to develop this course, and to assist in the integration of materials covered in other parts of the EMBA course activities. The primary teaching vehicle in this course will be the case method. Although some lectures will be given, concept development will take place through case discussions, readings and presentations. Background material will be provided by the instructor.

634.1(2) Business Research Project I

The object of this research project course is to give the group the opportunity to examine a particular problem in depth. The individual student's work will be supervised by a faculty member. Students will be required to present the findings of the project in the continuing Business Research Project II course, EMB 646.1(2).

641.1(2) International Business

This course focuses on some critical issues facing the manager in the international business arena. Introductory sessions examine issues of international trade and foreign market penetration strategies such as exporting, licensing and joint ventures. The multinational enterprise and organizational problems in international operations are also discussed, including the management of foreign exchange rate risk. After discussing issues of strategy and structure in the multinational enterprises, students will examine issues dealing with

the nation-state, both in the developed world and in the less developed regions.

642.1(2) Policy II - Public Policy in Business

This course examines the operation of the macroeconomy and discusses the fiscal and monetary tools available to the central authorities to affect overall economic activity. The traditional Keynesian model is developed and the debate between the monetarists and the Keynesians is discussed. The purpose and the effect of government regulations of the business environment will be examined as well.

643.1(2) Industrial Relations (Elective)

This course will cover the analysis of structure, functions, and development of the Canadian union movement; application of theoretical models to contemporary problems in labour and industrial relations in Canada; a study of the impact of environmental factors on union management relations. Emphasis will be placed on institutional and behavioral aspects of industrial relations. An attempt will be made to identify the objectives, values and motivations of the various parties involved in collective bargaining and the role of industrial conflict and industrial harmony will be examined in the context of collective bargaining goals.

644.1(2) Financial Innovations (Elective)

This course will examine the pace of innovation, deregulation and resulting structural transformations that have occurred in financial markets. Attention will focus on new financial instruments, particularly those that are of an off-balance sheet commitment form. Note Insurance Facilities (NIFs), currency and interest rate swaps, currency and interest rate options, Forward Rate Agreements (FRAs), option strategies and index futures will be covered, and future trends in innovations will be addressed.

645.1(2) International Marketing (Elective)

This course is designed to provide students with insights into the nature and environmental perspectives of marketing across national boundaries and with those within foreign countries. Emphasis is placed on the analytical processes in international marketing decisions, as well as knowledge of tools and practices for structuring and controlling marketing programs related to international business. Case studies will be used extensively.

646.1(2) Business Research Project II

Business research requires the scientific development, planning, execution and reporting of a business research project. The research will be conducted and reported under the guidance of a faculty advisor. The project must be well grounded in the current literature, and the report should include a delineation of the problem, method, results, and conclusions. In this course, students will be required to present their research projects to the EMBA students and faculty.

690.1(2) Seminar in Business Studies

Prerequisite: completion of all required 500-level EMBA courses.

The course deals with selected topics in business. The topics to be covered will vary depending on the interest of the students and instructors.

691.1(2) Directed Study

Prerequisite: completion of all required 500-level EMBA courses and permission of EMBA Director, Departmental Chairperson, and instructor.

Intended to supplement or provide an alternative to the electives in order to meet the special needs and interests of students.



EMBA graduating class — Spring Convocation 1993

Finance and Management Science (FIN and MSC)

Chairperson, Associate Professor	F. Boabang
Professor	J.C. Dodds
Associate Professors	T. Charles, M. Chew, D. Connelly, P. Dixon, D. Gray, J. Gregory, E. Lee
Assistant Professors	S. Amirkhalkhali, J. Clayton, P. Doran, R. Liebler, H. Millar, M. Mohd, M. Wang
Adjunct Professor	D. Welch

The Department of Finance and Management Science offers a variety of courses that may be classified as follows:

- those that deal directly with three of the primary functions of business - finance, data processing, and operations management; and
- those whose aim is to develop skills in management science - quantitative methods, computing, and statistics, which indirectly relate to all of the primary functions of business.

In addition to the core courses in quantitative methods (MSC 205, MSC 206, MSC 207), computing (MSC 225 or 325), and finance (FIN 360, FIN 361) which are required for the Bachelor of Commerce degree, the Department offers a number of advanced courses. In particular, those students pursuing a Bachelor of Commerce degree with a major in business administration may elect to specialize in finance, management science, or data processing. These three programs, along with others available within the business administration major, are outlined in Section 3 of the Calendar.

In addition to the data processing program cited above, information on other computer-related degree programs may be found in Section 3 of this Calendar.

At the graduate level, the Department offers the core courses (MSC 506, MSC 507, MSC 521 and FIN 561) required of all students in Year 1 of the MBA Program, as well as a number of elective courses available at the 600 level in Year 2 of the MBA Program.

Finance (FIN)

260.1(2) Personal Finance

A survey course designed to enable the student to better understand the considerations involved in the management of personal income savings, investments, mortgage analysis and tax planning.

Classes 3 hrs. a week. 1 semester.

Note: This course may not be taken for credit in the Bachelor of Commerce degree program.

360.1(2) Business Finance I

Prerequisite: MSC 207.1(2) (which may be taken concurrently) and ACC 242.1(2).

A basic course in business finance introducing the student to the discipline and presenting financial analysis, working capital management, capital budgeting, the tax environment and the role of financial intermediaries. Microcomputers will be used to perform analyses.

Classes 3 hrs. a week. 1 semester.

361.1(2) Business Finance II

Prerequisite: FIN 360.1(2).

A continuation from FIN 360.1(2) covering cost of capital, capital mix, capital and money markets, dividend policy, financial instruments and mergers, consolidations and bankruptcy. Microcomputers will be used to perform analyses.

Classes 3 hrs. a week. 1 semester.

362.1(2) Principles of Real Estate and Appraisal

Prerequisite: CML 201.1(2), and (or concurrently) FIN 361.1(2).

This course provides an introductory exposure to real estate in Canada. Subject areas that will be addressed include: real estate trends in Canada, financing of real estate, and an introduction to real estate appraisal.

Classes 3 hrs. a week. 1 semester.

363.1(2) Principles of Insurance

Prerequisite: CML 201.1(2), and (or concurrently) FIN 361.1(2)

This course introduces the student to the nature and management of risk. A survey of all types of insurance including life, general and liability are presented. Students will be introduced to the insurance industry from both an internal and external point of view. Special topics of consumer interest will also be addressed.

463.1(2) Financial Management

Prerequisite: FIN 361.1(2).

This course will deal with the problems of asset management. Topics will include working capital management, capital budgeting, required rates of return and evaluation of risk. Emphasis will be placed on the application of theory through the use of case studies.

Classes 3 hrs. a week. 1 semester.

464.1(2) Corporation Finance

Prerequisite: FIN 463.1(2) or permission of instructor.

This course examines the capital structure of the firm and the cost of capital in relation to the financing decision and dividend policy. Case studies will be used to examine the implications of the capital mix.

Classes 3 hrs. a week. 1 semester.

466.1(2) Investments

Prerequisite: FIN 361.1(2).

This course presents an overview of the Canadian investment environment. A framework is developed for assessing the merits of various security investment alternatives, and a brief introduction to portfolio management is given. In this course, calculus and mainframe computers are used extensively.

Classes 3 hrs. a week. 1 semester.

467.1(2) Portfolio Management

Prerequisite: FIN 466.1(2).

A comprehensive analysis of the decision-making process of portfolio management. Major subject areas include the definition of objectives to accord with the preferences, plans, and obligations of major classes of investors, analysis of the likely risks and gains of investments, individually and by class of security, and the selection of portfolios which appear most likely to satisfy stated investment objectives.

Classes 3 hrs. a week. 1 semester.

476.1(2) International Financial Management

Prerequisite: FIN 360.1(2) and 361.1(2).

This course is divided into three major parts. The first part provides a basic understanding of the forces that determine the relative values of currencies in the foreign exchange markets. Parts two and three focus on the firm with the financing of international operations and capital budgeting decisions.

Classes 3 hrs. a week. 1 semester.

490.1(2) Seminar in Finance

Prerequisite: permission of Chairperson or instructor.

This course deals with selected topics in finance. It is offered when sufficient demand, and specific topics covered may vary depending on the interests of students and instructor.

Classes 3 hrs. a week. 1 semester.

492.1(2) Directed Study

Prerequisite: permission of Chairperson and instructor.

Intended to supplement or provide an alternative to the regular finance courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Tutorial and independent study. 1 semester.

The following courses are available only to students registered in the Master of Business Administration Program and with permission of the MBA Director to students registered in other master's programs.

651.1(2) Business Finance

Prerequisite: ECO 500 or 501, MSC 506 or 507, ACC 540 or 548; or permission of MBA Director.

An introduction to financial management and the role of finance, both within the organization and the economy as a whole with emphasis on financial decision-making. The topics considered include investment decisions and subsequent financing, the costs of capital, the management of assets, and dividend policy.

653.1(2) Financial Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

Managerial in emphasis, this course examines financial planning and analysis, working capital management, capital budgeting techniques, and theories of cost of capital and valuation of the firm.

654.1(2) Corporate Financing

Prerequisite: FIN 663.1(2) or equivalent.

This course is also managerial in emphasis and covers material related to financing both the short and long term assets of the firm: bank borrowings, bonds, preferred stock, common stock, as well as mergers and consolidation.

655.1(2) Capital Markets

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

The purpose of this course is to discuss the management of investments. Although a strong theoretical treatment is adopted, the course is developed in the context of Canadian financial markets and available empirical work will be reviewed. Recent advances in option and bond markets will be developed and computer applications assessed. In addition, the asset-liability management of financial institutions - banks, mutual funds, insurance companies and public funds - will be reviewed.

657.1(2) Options, Futures and Swap Markets

Prerequisite: FIN 663.1(2) and 666.1(2).

This course is intended to help students understand activities of the financial institutions in the market place and the types of financial innovations taking place in the market place. Topics covered include contemporary issues in the options and futures markets and applications: stock options, stock index options, foreign currency options, curb options, commodity futures, foreign exchange futures, interest rate futures, stock index futures and interest rate swaps. Applications to hedging strategies are also emphasized.

658.1(2) International Business Finance and Banking

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course is organized around two themes - (i) the concept of the international firm and the financial management decisions it takes in a multi-currency world - and (ii) the challenges faced in the international banking system of asset/liability management, offshore financial centres, external debt and rescheduling and increased regulatory and supervisory measures.

660.1(2) Seminar in Finance

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course deals with selected topics in finance. It is offered when in sufficient demand, and specific topics covered may vary depending on the interests of students and instructor. In the past these have included real estate, investment and portfolio management, and international banking.

662.1(2) Directed Study

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director, Departmental Chairperson, and instructor.

Intended to supplement or provide an alternative to the regular finance courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

663.1(2) Research Seminar in Finance

Prerequisite: students registered full-time must take FIN 666.1(2) concurrently.

Study of research problems and methodologies in finance, with each student preparing and defending a research proposal of his/her

own based upon a critical review of current literature. This course is designed to aid students in the development of their project course.

699.1(2) Research Project in Finance

Prerequisite: FIN 698.1(2), completion of FIN 666.1(2) and either FIN 663.1(2) or 676.1(2), or permission of MBA Director.

Each student is required to complete a project involving the practical application of the research concepts and techniques used in finance, under the direct supervision of a faculty member. Interdisciplinary projects are acceptable.

Management Science (MSC)**205.1(2) Introduction to Quantitative Methods for Commerce I**

Prerequisite: Nova Scotia Grade 12 MAT 441 or 442; or MAT 050.1(2)/051.1(2); or equivalent.

This course illustrates applications of basic mathematical techniques in break-even analysis, data manipulation, aggregate planning and financial planning. Topics include linear functions, linear inequalities, the simplex method, compound interest, annuities and depreciation.

Classes 3 hrs. plus recitation session 1 1/2 hrs. a week. 1 semester.

Note: This is the same course as ECO 205.1(2).

206.1(2) Introduction to Quantitative Methods for Commerce II

Prerequisite: Nova Scotia Grade 12 MAT 441 or 442; or MAT 050.1(2)/051.1(2); or equivalent.

Note: No credit will be given for MSC 206 if taken subsequently to or concurrently with MAT 210.

The purpose of this course is to provide a basic understanding of the dynamics of non-linear functions as they relate to the use of scarce resources for profit maximization. Students will be exposed to the basic methods of calculus and the basic concepts of probability as they relate to decision making in an uncertain environment.

Classes 3 hrs. plus recitation session 1 1/2 hrs. a week. 1 semester.

Note: This is the same course as ECO 206.1(2).

207.1(2) Introductory Statistics for Commerce

Prerequisite: MSC 206.1(2).

This course is designed to introduce some common decision aids for coping with uncertainty. Topics include: data collection, summarization and presentation, reporting and interpreting the accuracy of results, evaluating the effectiveness of a decision and determining relationships among factors for the purpose of prediction. Examples will be drawn from accounting, economics, marketing, management, finance and production.

Classes 3 hrs. plus recitation session 1 1/2 hrs. a week. 1 semester.

Note: This is the same course as ECO 207.1(2).

225.1(2) Introduction to Computers

This course is an introduction to computers and their use in a business environment. The emphasis of the course is learning the use of common business software packages and programming. Other topics will include computer hardware and software, data processing and information systems.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

301.1(2) Operations Research

Prerequisite: MSC 207.1(2), and MSC 225.1(2) or 325.1(2).

This course provides a survey of various operational research models available to management decision-makers. Emphasis is placed on the selection and formulation of appropriate models, as well as the analysis and interpretation of their computer-generated solutions. Topics covered include: resource allocation, inventory management, and transportation and other network problems.

Classes 3 hrs. a week. 1 semester.

303.1(2) Statistical Analysis for Business and Economics

Prerequisite: MSC 207.1(2).

This course provides a further study of the statistical concepts introduced in MSC 207. It develops a working knowledge of such statistical tools as chi-square tests on contingency tables, multiple regression analysis, time series, and analysis of variance as applied

to a variety of business and economic problems with the aid of computerized data analysis.

Classes 3 hrs. a week. 1 semester.

Note: This is the same course as ECO 303.1(.2).

316.1(.2) Management of Service Operations

Prerequisite: MGT 281.1(.2), MSC 205.1(.2) and MSC 207.1(.2).

This course is designed to provide an overview of problems arising in provision of services in such areas as health care, banking, hospitality industries, transportation, etc. Topics covered include forecasting, location analysis, layout design, capacity planning, workshift scheduling, vehicle routing, quality control and inventory control.

Classes 3 hrs. a week. 1 semester.

317.1(.2) Management of Manufacturing Operations

Prerequisite: MGT 281.1(.2), MSC 205.1(.2) and MSC 207.1(.2).

This course is designed to provide an overview of problems arising from the production and supply of goods and services. Problem areas include: forecasting, distribution, plant layout, inventory management, quality management, planning of large projects and scheduling. Emphasis will be on problem identification and the evaluation of alternative solution strategies.

Classes 3 hrs. a week. 1 semester.

322.1(.2) Computer Simulation

Prerequisite: MSC 207.1(.2), and MSC 225.1(.2) or 325.1(.2).

Management techniques using the computer to model real world systems; heavy reliance on statistical modelling including parameter estimation and tests of significance; emphasis on the process from problem definition through data analysis to model validation and verification; interpretation of results and strategy or action recommendations; quality of output format in terms of its management information value is stressed. Students will use FORTRAN subroutines to construct a simulation language as tailored to their own simulation problem.

Classes 3 hrs. a week. 1 semester.

324.1(.2) The Use of COBOL in Data Processing

Prerequisite: MSC 225.1(.2) or 325.1(.2), or CSC 226.1(.2).

COBOL program organization, file organization, description and accessing, edit, sort, file maintenance and report writing programs, arrayed data, integration concepts, multi-programming concepts.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

326.1(.2) Database Programming

Prerequisite: MSC 225.1(.2) or permission of instructor.

This course covers programming business applications in a current database language. Also covered is a survey of data structures used in business applications and how they are implemented in common software packages.

Classes 3 hrs. a week. 1 semester.

335.1(.2) Decision Support Applications

Prerequisite: MSC 205.1(.2) and 225.1(.2).

This course is a continuation of MSC 225.1(.2) and provides an in-depth understanding of the integration of computer software to support business decision-making. Core content will include advanced use of spreadsheets, word processing and operating system macros. Other computer packages such as presentation graphics, accounting systems, decision support systems and expert systems may be utilized. This course will be taught as a series of decision problem cases.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

402.1(.2) Operations Research Methods and Applications

Prerequisite: MSC 301.1(.2).

The model-building techniques and optimization methods introduced in MSC 301 are discussed in detail, and utilized in realistic management science case studies. Methods considered will include dynamic programming, non-linear programming, Monte Carlo simulation and stochastic optimization. An emphasis will be placed on comparing the relative advantages of each operations research method, and selecting appropriate techniques for a given management problem.

Classes 3 hrs. a week. 1 semester.

424.1(.2) COBOL II

Prerequisite: MSC 324.1(.2).

This course is a continuation of MSC 324, aiding the student in developing flowcharting skills and programming capabilities specifically in the COBOL language.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

426.1(.2) Computer Configurations

Prerequisite: MSC 326.1(.2) and ACC 323.1(.2) and (starting in 1996) MSC 335.1(.2); or permission of Chairperson.

In this course the student gains a basic knowledge of computer hardware and software needed to run standard business applications. The hardware topics provide the background needed to making management decisions with respect to small business computer requirements. The software topics emphasize ways to maximize the efficient use of computers in small business.

Classes 3 hrs. a week. 1 semester.

436.1(.2) Data Communications

Prerequisite: MSC 426.1(.2) or permission of Chairperson.

This course is an introduction to data communications and network from a business application perspective. Topics covered include fundamental concepts of communications, types of communication links, information coding, and wide-area and local-area networks.

Classes 3 hrs. a week. 1 semester.

490.1(.2) Seminar in Management Science

Prerequisite: permission of Chairperson or instructor.

This course deals with selected topics in management science. It is offered when in sufficient demand, and specific topics covered may vary depending on the interests of students and instructor.

Classes 3 hrs. a week. 1 semester.

492.1(.2) Directed Study

Prerequisite: permission of Chairperson and instructor.

Intended to supplement or provide an alternative to the regular management science courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Tutorial and independent study. 1 semester.

The following courses are available only to students registered in the Master of Business Administration Program and with permission of the MBA Director to students registered in other master's programs.

506.1(.2) Introductory Decision Analysis I

The objectives of this course are to provide a basic understanding of (i) rational decision-making under uncertainty and (ii) the methods of statistical analysis. The approach taken in the course, and also in MSC 507, focuses on the logical process of assimilating quantitative information and the formulation of appropriate models in the context of case problems.

507.1(.2) Introductory Decision Analysis II

Prerequisite: MSC 506.1(.2) or permission of instructor.

This is a continuation of MSC 506 with emphasis on the methods of linear programming as applied to the allocation of scarce resources. Problems of queuing and inventory management are also considered.

521.1(.2) Computers in Business

This course acquaints the student with concepts relevant to the use of computers in business as well as the role of the computer in the management process. Special emphasis is placed on the logic and programming of a computer, interactive procedures using computer terminals, and the use of the computer as a management decision-making tool.

603.1(.2) Statistical Applications in Management Science I

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course brings together many of the theories and skills which the student has learned and uses them in designing, conducting, analyzing, and reporting the results of research designs. Statistical techniques used are: chi-square, analysis of variance, and multiple regression. Extensive use is made of computer-oriented statistical packages.

691.1(2) Statistical Applications in Management Science II
 Prerequisite: MSC 603.1(2).

This course is a further study of the application of research design, statistical techniques, and reporting procedures to actual research problems. Statistical techniques used are: multivariate analysis of variance, factor analysis, discriminant analysis, and cluster analysis.

691.2(2) Operations Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

Foundation in the concepts and techniques of operations/production management, dealing with methods used for the planning, organizing and scheduling of operations in both industry and other institutional settings.

691.1(2) Computer Systems

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course covers concepts needed in managing the development, installation, and operation of business computer systems (including hardware, software, personnel, data, and operations).

691.2(2) Seminar in Management Science

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course deals with selected topics in management science. It is offered when in sufficient demand, and specific topics covered may vary depending on the interests of students and instructor.

692.1(2) Directed Study

Prerequisite: completion of all 500-level MBA courses and permission of MBA Director, Departmental Chairperson, and instructor.

Intended to supplement or provide an alternative to the regular management science courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

698.1(2) Research Seminar in Management Science

Prerequisite: students registered full-time must take MKT 678.1(2) concurrently.

A study of research problems and methodologies in management science, with each student preparing and defending a research proposal of his/her own based upon a critical review of current literature. This course is designed to aid students in the development of their project course.

699.1(2) Research Project In Management Science

Prerequisite: MSC 698.1(2), completion of a MSC 600-level course, or permission of MBA Director.

Each student is required to complete a project involving the practical application of the research concepts and techniques used in management science, under the direct supervision of a faculty member. Interdisciplinary projects are acceptable.



Geography (GPY)

Chairperson, Professor
Professors
Associate Professors
Adjunct Professor

D. Day
R. McCalla, H. Millward
P. Ricketts, B. Robinson
T. Day

General Information

In its broadest sense geography studies the relationship between people and their surroundings. It derives much of its educational value from its interdisciplinary approach to such relationships. At the same time it is a subject of practical importance in such fields as urban and regional planning, resource development, industrial location, marketing research, and environmental management. The Geography Department has developed four major programs. The first is a general major which will be of particular interest to teachers and prospective geography teachers. The second structured major is for people interested in the field of urban and regional development. The third major is in coastal and marine studies while the fourth is in environmental studies.

Departmental Policy

1. The Department regards GPY 201.1(.2) and 202.1(.2) as service courses for the university in general and basic introductory courses for geography majors and honors students. Higher level courses are designed to serve the interest of geography majors but may be of interest to students in cognate areas. In some cases, the Department may allow a student from a cognate area to take the course without the stated prerequisite: for example, economics students may be admitted to GPY 321.1(.2) or 331.1(.2). History majors may be allowed to take GPY 429.0.
2. The course content in most geography courses is cumulative.
3. Where a prerequisite is specified, a student wishing to take the course must have obtained at least a C grade in the stated prerequisite.
4. Normally 300 and 400-level courses are not open to students in their first year at university.
5. Students may enter courses without the stated prerequisites, providing they have permission of instructors.
6. Because program changes occur from time to time with renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level or under a different number.

General Requirements for Majors

1. To obtain a major in geography a student must complete the equivalent of seven university credits (7.0) in geography.
2. The following courses are required for the major:
 - a. GPY 201.1(.2) and 202.1(.2).
 - b. Three of GPY 326.1(.2), 336.1(.2), 356.1(.2), 366.1(.2), 376.1(.2), and 476.1(.2).
 - c. One credit (1.0) at the 400 level.
 - d. Three and one half other credits (3.5) in geography.
3. In order to graduate with a major in geography, a student must obtain a quality point average of at least 2.00 in geography courses counting towards the major.
4. All majors must follow a program of study established in conjunction with, and approved by, a member of the Department of Geography and must have the program approved by the Department at the beginning of each year.
5. For more complete information on the geography program, the student should obtain a copy of Notes and Guidelines for Geography Students from the Departmental Secretary.
6. GPY 326.1(.2), 336.1(.2), 356.1(.2), 366.1(.2), 376.1(.2), and 476.1(.2) are normally open only to declared geography major and minor program students.

A Geography Major with a Minor in Geology

A student may, with approval by the Chairperson of the Department of Geography, major in geography with a minor in geology by fulfilling the following requirements:

1. (a) In addition to fulfilling all the requirements for a geography major, students must complete four credits (4.0) in geology, of which at least two (2.0) must be at the 300 level or higher;
 - (b) Courses that are cross-listed between geography and geology may only count towards the geology minor if they are taken as geology credits (if they are taken as geography credits they can only apply to the geography major).
2. Students accepted into the geology minor program will be allowed to count all four geology credits (4.0) towards their Arts degree requirements.

Honors Program

1. To be admitted to the honors program a student must have a B standing in geography courses and have completed one year at the university. The student must have obtained satisfactory grades in non-geography courses.
2. To complete the program students must complete the following courses in geography:
 - a. GPY 201.1(.2) and 202.1(.2).
 - b. GPY 326.1(.2) and 336.1(.2).
 - c. Two of GPY 356.1(.2), 366.1(.2), 376.1(.2), and 476.1(.2).
 - d. GPY 406.1(.2) and 416.1(.2).
 - e. GPY 526.0.
 - f. Seven other credits (7.0) in geography.
3. Each year a student's program, including electives, must be approved by the Chairperson, and each year at least a B average in geography courses must be maintained.
4. Complete details regarding the program and honors research project are contained in *Notes and Guidelines for Geography Students and Regulations for Presentation, Submission and Marking of the Honors Research Project*.
5. In addition, students must meet the general Faculty of Arts requirements for honors students.

Minor Program in Geography

It is possible to minor in geography by completing the equivalent of the following four credits (4.0) in geography. These courses should include: GPY 201.1(.2) and 202.1(.2); and two of 326.1(.2), 336.1(.2), 356.1(.2), 366.1(.2), 376.1(.2), and 476.1(.2).

Geology/Geography Combined Program

This degree program offers Bachelor of Science and Bachelor of Science (Honors) degrees, under the general requirements of the Faculty of Science. For full details, please consult the Department of Geology section of this Calendar.

201.1(.2) Introduction to the Physical Environment

This course is an introduction to physical geography through a systematic study of the Earth's physical environment. The characteristics and processes of our physical environment are examined, including climate and weather, soils and vegetation, and the origin, nature and distribution of landforms and water bodies.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

202.1(.2) The Human Use of the Environment

This course is an introduction to the geographic study of human environments. The distribution, explanation and analysis of human geographic patterns are discussed. The course shows how people have modified Earth's surface to transform nature, relocating and dislocating it for human use. Case studies or problems at global through local scales are used for illustrative purposes.

Classes 3 hrs. a week. 1 semester.

304.1(.2) Environmental Management

Prerequisite: GPY 201.1(.2) and 202.1(.2).

This course examines modern policy approaches to the management of environmental resources and landscapes. Specific environments and selected management issues focusing on the natural environment (such as soil erosion, water pollution, and natural hazards) will be examined, together with methods of environmental planning and impact assessment.

Classes 3 hrs. a week. 1 semester.

325.1(2) Rural Geography

Prerequisite: GPY 201.1(.2) and 202.1(.2).

This course examines the nature of rural settlement and land use in various rural and technological settings. Emphasis is placed on agricultural patterns, and the changing organization of the countryside in modern times. Topics include frontier settlement; land surveys; village morphology; land abandonment; farm enlargement and fragmentation; forestry, mining, and recreational uses; commuting; and conflicts over multiple land use and scenic preservation.

Classes 3 hrs. a week. 1 semester.

325.1(2) Urban Land Use

Prerequisite: GPY 202.1(.2).

This course analyzes the pattern of land use and the process of land change in the city. Topics include: measurement and classification of land use; land use mix; models of the internal structure of cities; land values and land use zoning; the characteristics and use of residential, commercial, manufacturing and public land; public and semi-public land; the impact of public policies on urban land use.

Classes 3 hrs. a week. 1 semester.

325.1(2) Geomorphology

GEO 373.1(.2)]

Prerequisite: GPY 201.1(.2) or GEO 200.0.

This course is a study of geomorphological processes and related landforms, with an emphasis on fluvial activity. Processes of weathering, soil formation, slope development and river action will be discussed. Laboratory work will include methods of field and data interpretation, analysis, sediment analysis and geomorphological mapping.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester. Some field work will be required.

330.0 The Oceans: A Physical Geography

Prerequisite: at least 5.0 credits.

This course begins with a study of the role of the oceans in the global environment. It considers the origin, nature, and distribution of ocean features, the principles and patterns of water circulation, and factors affecting the distribution and abundance of marine life. The implications of global climatic changes such as the Greenhouse effect on the oceanic environment will be considered, as well as the effects of the physical geography on human use of the oceans.

Classes 3 hrs. a week. 2 semesters.

330.0 Cultural Ecology

Prerequisite: GPY 201.1(.2) and 202.1(.2).

This course is an introduction to the study of the relationship between people and their environment, ranging from hunting and gathering societies to the industrial revolution.

Classes 3 hrs. a week. 2 semesters.

330.1(2) Geography of Manufacturing

Prerequisite: GPY 202.1(.2) or ECO 201.1(.2).

This course concerns the identification of key factors, and a discussion of their influence, in the geographical distribution and location of manufacturing industries. Both location theory and case studies are used to analyze the location of these industries. Topics include iron and steel, motor vehicles, and oil refining.

Classes 3 hrs. a week. 1 semester.

330.1(2) Systems of Cities

Prerequisite: GPY 202.1(.2).

This course examines cities as nodes in a system, which interact both with each other and with the regions surrounding them. Emphasis is placed on changes in the function and importance of cities, and on implications for regional planning. Topics include urban functions, central place theory, the urban hierarchy, urban system development, transport and communication linkages, urban growth rates, metropolitan influence, commuting zones, and the planning of city systems.

Classes 3 hrs. a week. 1 semester.

340.0 Ocean Use and Management

Prerequisite: at least 5.0 credits.

This course is a geographical study of the present and future uses of the oceans. Examination of the development and spread of new and traditional marine uses will focus attention on management issues. Course will

include mineral and energy exploitation, fish production, fish "ranching" and mariculture, shipping, recreational uses, military uses, and ocean dumping. Regional case studies will be used to illustrate evolving concepts of oceanic management, including the use of computerized information systems.

Classes 3 hrs. a week. 2 semesters.

325.1(2) Cross-listed as GEO 325.1(2) Stratigraphy and Sedimentation

Prerequisite: GPY 201.1(.2) or GEO 200.0.

326.1(2) Statistical Methods for Geographers

Prerequisite: GPY 201.1(.2) and 202.1(.2).

This course introduces students to methods and problems in the collection, description, and analysis of geographic data. Included are descriptive and inferential statistics for spatial data, regression and correlation, analysis of patterns, and use of statistical package programs.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

330.0 Geography of China

Prerequisite: at least 5.0 credits.

An analysis of the physical, social, cultural and economic characteristics and problems of the region. Consideration will be given to external and internal relationships of the region and to the problems of and prospects for the region's economic development.

Classes 3 hrs. a week. 2 semesters.

331.1(2) Geography of Natural Resources and Energy

Prerequisite: GPY 201.1(.2) and 202.1(.2) or ECO 201.1(.2).

The course begins by defining natural resources and discussing their geographical distribution on a world scale. It also considers their influence on economic development, settlement patterns, and world trade flows. Aspects of resource conservation and resource management are discussed. Particular emphasis is placed on energy: its distribution, influence and use.

Classes 3 hrs. a week. 1 semester.

332.1(2) Geography of Transportation

Prerequisite: GPY 202.1(.2).

This course provides an overview of the geographic study of transportation. Topics for consideration include: the causes of movement, measurement of distance, the cost of transportation and its influence in economic geography, the analysis of transportation networks, and the modelling of transportation flows. All transport modes are considered but emphasis is placed on land and air transport.

Classes 3 hrs. a week. 1 semester.

336.1(2) Principles of Cartography

Prerequisite: GPY 201.1(.2) and 202.1(.2).

An introduction to the design, compilation, and construction of maps and diagrams. Topics include map projections, scale change and generalization, lettering, symbolization, graphs, and colour. The major types of thematic mapping (proportional symbols, isopleths and choropleths) are studied.

Classes 2 hrs. and lab 3 hrs. a week. 1 semester.

339.0 Cultural Geographies

Prerequisite: GPY 202.1(.2).

A geographical perspective on cultural diversity on a global scale. Topics include roots and meaning of culture, the geography of language and religion, ethnic geography, folk and popular geography, urban geographies, and political geography.

Seminar 3 hrs. a week. 2 semesters.

340.1(2) Geography of Nova Scotia

Prerequisite: at least 5.0 credits.

This course explores the geographical diversity of the province, with particular emphasis on interrelationships between physical and human patterns. A section on the physical environment is followed by a discussion of settlement, cultural patterns, and economic development. Current issues of resource development, industrial reorganization, environmental management, and land use planning are addressed.

Classes 3 hrs. a week. 1 semester.

356.1(2) Remote Sensing of the Environment

Prerequisite: GPY 201.1(.2) and 202.1(.2).

A study of the principles and techniques used in the interpretation of air photographs and satellite imagery. The application of remote sensing to land use analysis and environmental management is stressed.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

360.1(2) Geography of Japan

Prerequisite: at least 5.0 credits.

This course stresses relationships between Japan's diverse physical environments and patterns of human occupation and land use. A section on the physical setting is followed by discussion of rural settlement, cultural patterns, urban development, and industrial geography. Current issues of land use planning and environmental management are addressed.

Classes 3 hrs. a week. 1 semester.

364.1(2) Geography of Shipping

Prerequisite: GPY 202.1(.2).

The course considers the spatial dynamics of the world shipping industry. Topics for discussion include: theories of international trade, oceanic shipping's importance to world trade, bulk trade patterns, general cargo trade patterns, the changing time-space relationships associated with increasing ship size and new types of ships and the importance and development of the world's merchant fleet with particular emphasis on Canada.

Classes 3 hrs. a week. 1 semester.

366.1(2) Field Techniques and Research Methods

Prerequisite: GPY 201.1(.2) and 202.1(.2).

Topics include: the nature of geographic problems, formulating a research plan, locating and measuring field phenomena, spatial sampling designs, and questionnaire designs. Students will learn basic methods of field surveying, including triangulation and levelling.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

374.1(2) Geography of Ports

Prerequisite: GPY 202.1(.2).

The course considers the seaport as a modern transport node. Topics for discussion include: locational characteristics of ports; the "gateway" functions vs. the terminal function of port cities; the process of hinterland penetration and foreland development; and port competition and planning.

Classes 3 hrs. a week. 1 semester.

376.1(2) Geographical Information Systems (Raster)

Prerequisite: GPY 201.1(.2) and 202.1(.2).

An introduction to the principles and applications of raster-based G.I.S., including data structures, the acquisition and preprocessing of data, data management systems, and the use of remotely sensed data in G.I.S. Students will be shown how to perform different kinds of terrain and spatial analysis, image processing techniques and geometric rectification.

Classes 2 hrs. and lab 3 hrs. a week. 1 semester.

406.1(2) Seminar in Theoretical Geography

Prerequisite: Year 3 and Year 4 students in geography.

Students will be made familiar with major advances in theoretical and philosophical aspects of geography.

Classes 3 hrs. a week. 1 semester.

413.1(2) Coastal Geomorphology

Prerequisite: GPY 313.1(.2).

The course discusses both the physical processes which operate in the coastal zone and the resulting forms of these processes. Particular emphasis is placed on the action of waves and tides in the formation of coastal features. The effects of wind and people acting as geomorphological agents and the classification of coasts are considered.

Classes 3 hrs. a week, including lab and practical work. 1 semester. Some field work may be required.

414.1(2) Coastal Management

Prerequisite: GPY 304.1(.2) and the equivalent of one other credit (1.0) in geography at the 300 level.

Using a problem oriented approach, attention will be focused on the resource attributes of the coastal zone, the spatial organization of use that it supports and the areal impacts and conflicts that can occur at this land-sea interface. Techniques of resource evaluation will be reviewed. Concepts associated with the spatial aspects of coastal resource management will be discussed.

Classes 3 hrs. a week. 1 semester. Some field work may be required.

416.1(2) Seminar in Applied Geography

Prerequisite: Year 3 and Year 4 students in geography.

Role of the geographer and geographical studies in fields such as environmental, regional and urban planning; resource management; mapping and surveys; and marketing.

Classes 3 hrs. a week. 1 semester.

423.1(2) Glacial Geomorphology

[GEO 475.1(.2)]

Prerequisite: GPY 313.1(.2) or GEO 373.1(.2).

The study of geomorphological processes and landforms in glacial environments. Emphasis will be placed on explanations and descriptions of glacial processes and glacial landform development in various physical environments. Glacial history will form a minor component of the course.

Classes 3 hrs. a week including lab and practical work. 1 semester.

429.0 Urban Historical Geography

Prerequisite: one (1.0) 300-level geography credit.

The geography of the city (its morphology and function) is employed as an indication of the landscape impression produced by various historical periods (conceived as cultures) during the evolution of urban forms in Europe and North America. Examples are taken in historical sequence from Greek to Industrial times.

Classes 3 hrs. a week. 2 semesters.

432.1(2) Social Geography of the City

Prerequisite: GPY 312.1(.2).

Examines the location of residential areas in cities, and the differentiation and segregation of those areas by income, occupation, race, ethnic status, and religion. Emphasis is placed on the historical evolution of social patterns, on the link between social areas and the physical fabric of the city, on competition between groups for amenities, locations and facilities, and on conflicts over noxious facilities.

Classes 3 hrs. a week. 1 semester.

442.1(2) Urban Planning

Prerequisite: GPY 312.1(.2).

Examines the physical and environmental planning of urban areas, with special reference to current practice in Nova Scotia. Topics include the emergence of modern town planning, the Planning Act, planning process, structure plans, general and partial urban allocation models, municipal plans, zoning, subdivision control, site planning, urban renewal, and new towns. The costs and benefits of planning are appraised.

Classes 3 hrs. a week. 1 semester.

452.1(2) The Geography of Urban Transportation

Prerequisite: one of GPY 312.1(.2), 332.1(.2), or 364.1(.2).

This course focuses on patterns and processes of movement within cities. Topics for consideration include: the role of transportation in shaping urban form, transportation problems in cities today, the urban transportation planning process, patterns of public transit and automobile use, environmental impacts of urban transportation, the communications-transportation trade off.

Classes 3 hrs. a week. 1 semester.

456.0 Directed Study

Prerequisite: permission of Chairperson.

An instructor will guide a student in topics of special interest that have been decided upon after consultation between student and instructor. The topics will be part of the special research interest of the instructor and of mutual interest to student and instructor.

465.1(2) Cross-listed as GEO 465.1(2) Sedimentology

Prerequisite: GPY 325.1(.2) or GEO 325.1(.2).

526.1(2) Directed Study

Prerequisite: permission of Chairperson.

Instructor will guide a student in topics of special interest that have been decided upon after consultation between student and instructor.

526.1(2) Geographical Information Systems (Vector)

Prerequisite: GPY 336.1(.2) and 376.1(.2).

Study of the principles and applications of vector-based G.I.S. using a full capability system. Students will be shown how to digitize maps, construct and manage data files, manipulate and analyze vector-based data sets. The course will also cover vector/raster conversion in G.I.S. This course will use the MapGrafix software program together with MapLink and MapView.

Classes 2 hrs. and lab 3 hrs. a week. 1 semester.

526.0 Honors Research Project

Prerequisite: honors standing in geography.

Honors students will be assigned to a research advisor who will guide the student in the formulation of the research proposal, the methodology to be followed during the course of the research and in the analysis and write-up of the research findings.

Geology (GEO)

Chairperson, Professor
Professors
Associate Professors
Adjunct Professors

J. Dostal
G. Pe-Piper, Q. Siddiqui
V. Owen, J. Waldron
D. Keppie, G. Williams

The Department of Geology offers programs of study for students enrolled in the degree of Bachelor of Science with concentration in geology and for those registered in the degree of Bachelor of Science with major and honors in geology.

The courses of the core program for a student majoring in geology are: GEO 200.0, 211.1(.2), 213.1(.2), 312.1(.2), 313.1(.2), 320.1(.2), 321.1(.2), 325.1(.2), 413.1(.2), 441.1(.2) and 442.1(.2). Students are required to take at least one additional geology credit (1.0) for a minimum total of seven credits (7.0) in the Department.

The core courses for the honors program, in addition to those for majors, are GEO 550.0 and one other credit (1.0) in geology at the 500 level. Honors students must take sufficient additional geology courses for a minimum total of ten credits (10.0).

Students entering the major and honors programs in geology normally would initially take GEO 200.0, 211.1(.2) and 213.1(.2). Other science students interested in geology would take GEO 200.0. GEO 204.0 and GEO 205.0 are designed chiefly for students in Commerce, Education and Arts including Atlantic Canada Studies. Two courses, GEO 200.0 and 204.0, give a broad survey of the discipline. Only one of these courses may be taken by Science students as a science elective. In exceptional cases where a student has taken GEO 204.0 with high standing, that course may, with the permission of the Department, be accepted in the geology core program in lieu of GEO 200.0. Under special circumstances, some prerequisites for 300, 400 and 500-level courses may be waived with the permission of the Department. It is strongly recommended that all geology major and honors students take GEO 300.1(.2).

Students should seek the advice of the Department as to their elective and supporting courses.

Year 4 students are encouraged to participate in the research projects being carried out in the Department.

Geology/Geography Combined Program

This program offers Bachelor of Science and Bachelor of Science (Honors) degrees, under the general requirements of the Faculty of Science. The geology/geography major program requires a minimum grade of C in all geology and geography courses. The geology/geography honors program requires (a) a minimum grade of C in all geology and geography courses; and (b) a minimum quality point average of 3.00 in these same courses.

1. Geology/Geography Major (Bachelor of Science)

a. Geology Department Requirements (total 5.0 credits)

- (i) Compulsory core courses (total 4.0 credits)
- | | |
|---------------|--------------------------------|
| GEO 200.0 | Principles of Geology |
| GEO 211.1(.2) | Mineralogy |
| GEO 213.1(.2) | Optical Mineralogy |
| GEO 312.1(.2) | Igneous Petrology |
| GEO 320.1(.2) | History of Life |
| GEO 321.1(.2) | Palaeontology |
| GEO 325.1(.2) | Stratigraphy and Sedimentation |
- (ii) At least 1.0 credit from:
- | | |
|---------------|-----------------------------|
| GEO 313.1(.2) | Metamorphic Petrology |
| GEO 413.1(.2) | Structural Geology |
| GEO 441.1(.2) | Mineral Resources |
| GEO 442.1(.2) | Industrial Mineral Deposits |

b. Geography Department Requirements (total 5.0 credits)

- (i) Compulsory core courses (total 3.0 credits)
- | | |
|---------------|--|
| GPY 201.1(.2) | Introduction to the Physical Environment |
| GPY 202.1(.2) | The Human Use of the Environment |
| GPY 313.1(.2) | Geomorphology |
| GPY 326.1(.2) | Statistical Methods for Geographers |
- One of:
- | | |
|---------------|-----------------------------------|
| GPY 336.1(.2) | Principles of Cartography, or |
| GPY 356.1(.2) | Remote Sensing of the Environment |

(ii) At least 2.0 credits from:

- | | |
|---------------|----------------------------------|
| GPY 304.1(.2) | Environmental Management |
| GPY 314.0 | The Oceans: A Physical Geography |
| GPY 324.0 | Ocean Use and Management |
| GPY 413.1(.2) | Coastal Geomorphology |
| GPY 414.1(.2) | Coastal Management |
| GPY 423.1(.2) | Glacial Geomorphology |

A maximum of one of GPY 336.1(.2) Principles of Cartography, GPY 356.1(.2) Remote Sensing of the Environment, GPY 366.1(.2) Field Techniques and Research Methods, GPY 376.1(.2) Geographical Information Systems (Raster), or GPY 476.1(.2) Geographical Information Systems (Vector).

2. Geology/Geography Honors Program (Bachelor of Science Honors)

In addition to the above requirements, honors students must complete:

- GEO 550.0 Honors Project or GPY 526.0 Honors Research Project
- 1.0 additional credit in geology at 500 level
- 1.0 additional credit in geology above 200 level
- 2.0 additional credits in geography above 200 level

Honors students are required to complete the following courses (some of which may have been taken before the honors year):

- | | |
|---------------|-----------------------------------|
| GEO 313.1(.2) | Metamorphic Petrology |
| GEO 413.1(.2) | Structural Geology |
| GEO 441.1(.2) | Mineral Resources |
| GEO 442.1(.2) | Industrial Mineral Deposits |
| GPY 356.1(.2) | Remote Sensing of the Environment |
| GPY 413.1(.2) | Coastal Geomorphology |
| GPY 423.1(.2) | Glacial Geomorphology |
| GPY 406.1(.2) | Seminar in Theoretical Geography |
| GPY 416.1(.2) | Seminar in Applied Geography |

In the honors Bachelor of Science geology/geography program, topics for honors theses should be approved by both Departments and may be carried out in either Department.

Co-operative Education in Geology

This program, which is available at both the major and honors level, integrates on-the-job experience and academic studies. Upon completion of one of the Co-operative Education programs, the student receives the Bachelor of Science degree in geology, at the major or honors level, with the added qualification of "Co-operative Education".

Further details and regulations on the Faculty of Science Co-operative Education program are found in Section 3 of this Calendar.

Combined Co-operative Education in Geology/Geography

The students enrolled in the combined geology/geography major/honors may also pursue a Co-op option in this dual program. Application to and completion of this combined option is the same as those for other Science Co-op major programs.

Further details and regulations on the Faculty of Science Co-operative Education program are found in Section 3 of this Calendar.

200.0 Introduction to Earth Science

The Earth as a dynamically evolving planet and how we study it; its rocks and minerals; surface processes of erosion and deposition by water, wind and glacial ice; the fossil record and measurement of time; internal processes active within the Earth that give rise to volcanoes, earthquakes, continental drift, and the generation of new ocean floors. Geological evolution of North America.

Laboratories include field trips, geological maps and mapping, and recognition of minerals and rocks.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

201.1(.2) Geology for Engineers

This course introduces aspects of the physical properties of rocks and minerals, and emphasises features controlling the mechanical strength of rocks. Laboratory work focuses on the interpretation of geological maps and aerial photographs, and case studies of civil engineering projects.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

204.0 The Earth: Atlantic Canada Perspective

Towards an understanding of the Earth around us and the processes which affect it, using examples drawn from the geology of Atlantic Canada. Earth history as traced through rock and fossil records. Plate tectonics and how it has affected the Atlantic region through geologic time. Recognition and interpretation of surface features of the Earth, and the materials of which it is made. Economic mineral resources and environmental changes affecting Atlantic Canada. This course is intended mainly for non-science students including those in Atlantic Canada Studies.

Classes 3 hrs. a week. 2 semesters.

205.0 Environmental Geology: Atlantic Canada Perspective

This course examines the geological principles that apply to environmental problems, and will focus on current issues of concern in the Atlantic Provinces. Topics covered may include: global environmental cycles, the greenhouse effect and sea-level change; constraints on resource exploitation, including tidal power, offshore petroleum and mining; impact of pollution and waste disposal on groundwater; health effects of bedrock geology including arsenic and radon; and the role of geology in community planning.

Classes 3 hrs. a week. 2 semesters.

207.1(2) Environment, Radiation and Society

Radioactivity has an impact on our society and environment. Radiation given off during the process of radioactive decay is harmful, but is accompanied by the release of energy that can be harnessed. The course reviews radioactive decay and explores geological sources of radiation, uranium deposits and mining, economics of nuclear power and the geological aspects of radioactive waste disposal. The course will foster an understanding of issues that surround the use of nuclear technology in our society.

Classes 3 hrs. a week. 1 semester.

211.1(2) Mineralogy

Introduction to a systematic study of the major mineral groups, including their crystal structure, chemical composition, physical properties, identification and practical use.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

213.1(2) Optical Mineralogy

Prerequisite: GEO 211.1(2) or permission of Department.

Optical properties of minerals. Determinative mineralogy with emphasis on the optical methods of mineral identification. Petrography of the more common rocks.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

220.1(2) Field Methods

Prerequisite: GEO 200.0 and attendance at field camp.

This course introduces the student to basic field techniques used by geologists. Field observations and measurements collected during a one week field camp and during the course are summarized by the student as a series of reports.

Classes 3 hrs. a week plus fieldwork. 1 semester.

225.1(2) Geophysics

Prerequisite: PHY 221.0 or equivalent.

The physics of the Earth, including rotation, gravity, seismology and internal structure, magnetic and electrical properties, radioactivity, and the Earth's heat. Geophysical exploration of the Earth's crust, including seismic refraction, seismic reflection, magnetic, gravity and electrical methods.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

222.1(2) Igneous Petrology

Prerequisite: GEO 200.0 and 213.1(2).

This course emphasises the mineralogical and chemical characteristics of igneous rocks, and their classification, petrography, and tectonic setting. The processes responsible for the evolution of diverse igneous rock associations are also considered. Laboratory work involves the study of igneous rocks in hand sample and thin section.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

223.1(2) Metamorphic Petrology

Prerequisite: GEO 200.0 and 213.1(2).

This course introduces aspects of the description and interpretation of metamorphic rocks by citing the effects of the progressive

metamorphism of mafic, pelitic and carbonate rocks. Other topics include the use of composition-assemblage diagrams, methods of quantitative geothermobarometry, and the interpretation of pressure-temperature-time trajectories for metamorphic rocks. Laboratory work involves the study of metamorphic rocks in hand sample and thin section.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

320.1(2) History of Life

Prerequisite: permission of Department.

An account of the 3500 million-year history of life on Earth, including theories of the origin of life, and modes of preservation of organisms as fossils. It also covers the phenomenon of evolution and some major patterns and crises in the history of life.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

321.1(2) Palaeontology

Prerequisite: permission of Department.

The morphology, classification and stratigraphic ranges of the main groups of invertebrate fossils. Emphasis is placed on the uses of fossils in elucidating stratigraphy, the environment under which strata accumulated, and world geography in those times.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

325.1(2) Stratigraphy and Sedimentation

[GPY 325.1(2)]

Prerequisite: GEO 200.0 or GPY 201.1(2).

Introduction to modern sediments, processes of sedimentation and the origin of sedimentary structures. Interpretation of sediments and sedimentary rocks in the light of comparison with selected modern environments. Deposition of strata, correlation, and the definition of stratigraphic units. The geological time scale. Unconformities, stratigraphic sequences, and the interpretation of the stratigraphic record.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

326.1(2) Sedimentary Petrology

Prerequisite: GEO 213.1(2) and 325.1(2) (which may be taken concurrently).

The composition of sediments and sedimentary rocks. Rocks of biological and chemical origin: interpretation of environments of deposition in carbonates, evaporites, siliceous and iron-rich sediments. Weathering and the origin of clastic sedimentary particles. Mudrocks, sandstones, and conglomerates and their interpretation. Laboratory methods for the study of sedimentary rocks.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

330.1(2) Introduction to Micropalaeontology

Prerequisite: permission of Department.

Techniques for the collection, preparation and identification of microfossils. Major groups of microfossils and their industrial use, especially in the petroleum industry.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

332.1(2) Cross-listed as CHE 332.1(2) Introductory Analytical Chemistry: Wet Methods**333.1(2) Cross-listed as CHE 333.1(2) Introductory Analytical Chemistry: Instrumental Methods****340.1(2) Surface and Groundwater Hydrology**

Prerequisite: one of GEO 200.0, 204.0, 205.0; or GPY 201.1(2).

The course examines the fundamentals of hydrology, including the precipitation, infiltration and storage of water. It emphasizes practical approaches to the examination of water supply, the movement of groundwater through various geological materials, groundwater exploration, contaminant modelling and water resource management.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

373.1(2) Geomorphology

[GPY 313.1(2)]

Prerequisite: GEO 200.0.

The study of geomorphological processes and related landforms, with an emphasis on fluvial activity. Processes of weathering, soil formation and characteristics, landsliding and slope development will be discussed. Laboratory work will include methods of field and data interpretation, soil analysis, sediment analysis and geomorphological mapping.

Classes 3 hrs. and lab 1/2 hr. a week. 1 semester.

413.1(.2) Structural Geology

Prerequisite: GEO 200.0.

Structures produced by deformation in the Earth's crust, including fabrics, folds, faults, and shear zones. Geometric, kinematic, and dynamic analysis of structures. Use of geometric and stereographic projection techniques in the interpretation of geological structures and geological maps. Introduction to stress and strain. Structures characteristic of selected tectonic environments, including rifts, thrust belts, and zones of strike-slip movement.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

414.1(.2) Global Geology

Prerequisite: GEO 200.0; and at least one of GEO 312.1(.2), 325.1(.2), and 413.1(.2) (which may be taken concurrently).

This course describes the major features of the Earth and its place in the solar system. It introduces the evidence for plate tectonics, the analysis of plate movements, and the characteristic rock associations formed in different tectonic environments. Aspects of global change will be considered, including the evolution of tectonic processes through geologic time, changes in the atmosphere and oceans, and the importance of meteorite impacts.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

441.1(.2) Mineral Resources

Prerequisite: GEO 200.0.

A study of Earth's mineral resources, particularly metallic and some non-metallic mineral deposits, their classification, genesis and distribution in time and space. Important examples from Canada and abroad will be discussed. Topics will also include mineral exploration, mining, and the environmental impact of resource exploitation.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

442.1(.2) Industrial Mineral Deposits

Prerequisite: GEO 441.1(.2).

The course examines the geology, mineralogy, economic geology and origin of major types of industrial mineral deposits in Canada and elsewhere. Laboratory includes investigation of suites of samples from the deposits.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

450.1(.2) Advanced Igneous Petrology

Prerequisite: GEO 312.1(.2).

Genesis of magmas, magma types, petrographic provinces and their distribution in time and space and their relations to their tectonic setting. Differentiation indices, variation diagrams, distribution trends of major and trace elements. Equilibrium and fractional crystallization in selected synthetic systems and their application to natural systems. Study of selected suites of igneous rocks.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

451.1(.2) Advanced Metamorphic Petrology

Prerequisite: GEO 313.1(.2).

The topics covered in this course include phase equilibria in metamorphic systems, reaction balancing methods, porphyroblast-matrix relations, and the quantification of pressure-temperature-time trajectories. Laboratory work is centred on the acquisition and manipulation of microprobe data.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

453.1(.2) Principles of Geochemistry

Prerequisite: GEO 200.0.

Principles of distribution of elements in the solar system, in rocks, and in minerals. Chemical processes of geological importance. Chemical interpretation of geological processes in aqueous environments, diagenesis, igneous and metamorphic rocks.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

454.1(.2) Applied Geochemistry

Prerequisite: GEO 200.0.

The application of geochemistry to prospecting for minerals and oil fields; methods of sampling and analysis; statistical evaluation of geochemical data; cycling of geochemical species in the environment; environmental geochemistry.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

462.1(.2) Micropalaeontology of Ostracoda and Foraminifera

Prerequisite: GEO 321.1(.2) or 330.1(.2) (which may be taken concurrently).

A detailed study of Ostracoda and Foraminifera with particular reference to their morphology, taxonomy, ecology, and biostratigraphy. The use of these microfossils in oil exploration will be emphasized.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

465.1(.2) Sedimentology

[GPY 465.1(.2)]

Prerequisite: GEO 325.1(.2) or GPY 325.1(.2).

Dynamics of fluid flow and transport of sediment by air, water and ice. Analysis of modern sedimentary environments including terrestrial, lacustrine, marginal marine, and marine systems. Analysis of ancient sedimentary facies and their environmental interpretation with emphasis on clastic sediments.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

466.1(.2) Petroleum Geology

Prerequisite: permission of Department.

The origin, migration and accumulation of oil and natural gas. Types of oil bearing structures and basic principles in oil exploration.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

475.1(.2) Cross-listed as GPY 423.1(.2) Glacial Geomorphology

Prerequisite: GEO 373.1(.2).

518.1(.2) Canadian Regional Tectonics

Prerequisite: GEO 413.1(.2).

This course is intended to synthesize the various aspects of geology treated in more specialized courses through an analysis of those processes which have shaped some of the major Canadian geological regions. We will examine the structure, stratigraphy and petrology of mountain belts (Cordillera, Appalachians), Precambrian shield (Grenville, Churchill, Superior), and sedimentary basins (East Coast shelf, Western Canada, Sverdrup) in order to determine what processes, including plate tectonic processes, created them.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

530.1(.2) Directed Study in Geology

Prerequisite: restricted to Year 4 students in the honors program or permission of Department.

Intended to supplement or provide an alternative to the regular geology courses in order to meet the special needs and interests of students. The course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Classes 72 hrs. per semester; classes and labs.

540.1(.2) Special Topics in Geology

Prerequisite: restricted to Year 4 students in the honors program or permission of Department.

Readings and discussions of current literature in geology on selected topics. Such topics as plate tectonics, geochemistry, statistics in geology, isotope geochemistry, petrogenesis, ore genesis, may be included.

Classes 72 hrs. per semester; classes and labs.

550.0 Honors Project

Prerequisite: honors standing and permission of Department.

Research project carried out under the supervision of one member of the Department or jointly by more than one faculty member. Originality of the research project is emphasized.

565.1(.2) Advanced Sedimentology

Prerequisite: restricted to Year 4 students in the honors program.

Detailed study of selected depositional environments and sedimentary facies. Analysis of sedimentary strata including Canadian examples. Quantitative methods of facies analysis and the application of statistical methods in sedimentology. Methods for the analysis of subsurface sedimentary and stratigraphic sequences. Areas of specific emphasis may vary from year to year.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Global Business Management (GBM)

Committee on Global Business Management

H. Schwind, Coordinator	Management
T.S. Chan	Marketing
T. Charles	Finance and Management Science
A. Mukhopadhyay	Economics
P. Secord	Accounting

The topic "Globalization of Business" has received considerable attention in all media for several years. The focus has been increasingly on the lack of competitiveness of Canadian companies internationally. Now even small entrepreneurs have to compete against foreign companies. Multinational organizations hire and transfer employees around the globe. Japanese and Canadians, Indians and Australians, Chinese and Malaysians learn to work together, to communicate effectively, and to manage as a global team, with synergy instead of conflict.

Managers wish to deal with the rest of the world on the same basis, they must learn to adapt psychologically, to communicate effectively, and interact socially with other cultures. Global managers are expected to speak more than one foreign language. The Bachelor of Commerce in Global Business Management offers the opportunity to study the skills essential for a successful career in this arena.

Year 1

ECO 201.1(.2)	Principles of Economics: Micro
ECO 202.1(.2)	Principles of Economics: Macro
EGL 201.1(.2)	English Composition
EGL 202.1(.2)	An Introduction to Literature
MGT 281.1(.2)	Introduction to Business Management
MSC 205.1(.2)	Introduction to Quantitative Methods for Commerce I
MSC 206.1(.2)	Introduction to Quantitative Methods for Commerce II
MSC 225.1(.2)	Introduction to Computers
Language elective (1.0)	(Chinese, French, German, or Spanish)

Year 2

ACC 241.1(.2)	Introductory Accounting I
ACC 242.1(.2)	Introductory Accounting II
DML 201.1(.2)	Legal Aspects of Business - Part I
DOM 293.1(.2)	Managerial Communications
or	
EGL 250.1(.2)	Business English
MGT 383.1(.2)	Organizational Behavior I
MGT 384.1(.2)	Organizational Behavior II
MKT 270.1(.2)	Introduction to Marketing
MSC 207.1(.2)	Introductory Statistics for Commerce
Economics elective (1.0)	(except ECO 317 or ECO 322)

Year 3

ACC 332.1(.2)	Planning and Control
ACC 357.1(.2)	International Accounting
FIN 360.1(.2)	Business Finance I
FIN 361.1(.2)	Business Finance II
MKT 375.1(.2)	International Marketing
Language elective (1.0)	(same language as Year 1 elective)
Geographic elective (1.0)	[see note (a) below]
Free elective (0.5)	

Year 4

FIN 476.1(.2)	International Financial Management
MGT 488.1(.2)	International Business Management
MGT 489.1(.2)	Strategic Management
Geographic elective (1.0)	[see note (b) below]
Cognate elective (1.0)	[see note (c) below]
Free electives (1.5)	

Notes:

- Elective must be selected from the approved lists below for one of the following regions: Africa, Americas, Asia, or Europe.
- Elective must be selected from the approved lists below for one of the regions (Africa, Americas, Asia, or Europe) different from the Year 3 geographic credit.
- Elective must be selected from the geographic area lists or cognate elective list below. If ECO 310, ECO 312, ECO 313, ECO 315, or ECO 414 were used to satisfy the economics elective(s) in Year 2, the number of free electives is increased to 2.0 or 2.5 as appropriate.
- In cases where a student is fluent in two languages, other courses relevant to the major may be substituted for the language credits, with the approval of the Program Coordinator.

e. Notwithstanding the course substitutions possible in notes (c) and (d), all students must complete at least 3.0 non-commerce electives.

Approved Electives Offered at Saint Mary's University* Africa

REL 323.1(.2) The Islamic Religious Tradition

Americas

ECO 306.1(.2)	North American Economic History
ECO 406.1(.2)	Canadian Economic History in an International Context
GPY 310.1(.2)	Geography of the United States
HIS 251.0	The United States: 1877 to the Present
HIS 310.0	Anglo-American History: Studies in Pre-Industrial Labour and Culture, 1600-1865
HIS 318.0	The United States in the 20th Century
HIS 319.0	Canadian-American Relations
HIS 329.0	History of Canada 1849-1920
HIS 330.0	American Social and Intellectual History
HIS 333.0	History of Canada in the 20th Century
HIS 349.0	Canadian Labour History
HIS 361.1(.2)	Canadian Business History, 1820-1867
HIS 362.1(.2)	Canadian Business History, 1867-1920
HIS 375.0	Modern Latin America
HIS 385.0	Aspects of Global History: One Earth, Many Worlds
MGT 493.1(.2)	Business-Government Relations in Canada
POL 315.0	Canadian Foreign Policy
POL 440.0	Canadian-American Relations since WWII
SOC 403.0	Revolution and Change: A Case Study - Cuba

Asia

ANT 325.0	Ethnology: Oceania
GPY 330.1(.2)	Geography of China
GPY 360.1(.2)	Geography of Japan
HIS 209.0	East Asia: From Prehistory to Modern Times
HIS 323.0	China Before 1800
HIS 324.0	Traditional Japan: History and Culture
HIS 325.0	Asian Crossroads: Southeast Asia from 1600 to Independence
HIS 342.0	China in Revolution: 1840 to the Present
HIS 385.0	Aspects of Global History: One Earth, Many Worlds
HIS 381.1(.2)	East Asia and the West to 1800
HIS 382.1(.2)	East Asia and the West Since 1800
HIS 392.0	Modern Japan
HIS 394.1(.2)	The Emergence of Modern Korea
HIS 396.1(.2)	China and Japan in the 20th Century: Ideology, State and Society
REL 323.1(.2)	The Islamic Religious Tradition
REL 324.0	Religions of China
REL 326.1(.2)	The Hindu Religious Tradition
REL 327.1(.2)	The Buddhist Religious Tradition
SOC 447.1(.2)	Work and the Empowerment of Women in India

Europe

GPY 320.0	Geography of Europe
HIS 304.0	Europe 1848-1989
HIS 305.0	History of Russia and the U.S.S.R.
HIS 306.0	Images and European History
HIS 310.0	Anglo-American History: Studies in Pre-Industrial Labour and Culture, 1600-1865
HIS 314.1(.2)	The British Empire—Commonwealth
HIS 339.0	Russia and the U.S.S.R. Since 1917
HIS 385.0	Aspects of Global History: One Earth, Many Worlds
HIS 399.0	The Lingering Death of Imperial Britain, 1870-1982
POL 306.0	Government and Politics in Europe

Cognate Electives

ANT 201.0	Women: A Cultural Perspective
ANT 300.0	Society and Culture
ANT 310.0	Applied Anthropology: Culture Change and Development
ANT 315.0	Peasant Society and Culture
ANT 320.0	World Ethnology
ANT 335.0	Psychological Anthropology
ANT 340.0	Socio-cultural Aspects of Health and Illness
ECO 310.1(.2)	Development Economics
ECO 312.1(.2)	History of Economic Thought

ECO 313.1(.2)	International Finance	REL 202.0	Introduction to Comparative Religion
ECO 315.1(.2)	Comparative Economic Systems	REL 341.1(.2)	Political Theology: East and West
ECO 410.1(.2)	Issues in Economic Development	REL 342.1(.2)	Religion and War
ECO 412.1(.2)	History of Modern Economic Thought	REL 347.1(.2)	Ecology and Religion
ECO 414.1(.2)	International Trade	SOC 380.0	Third World Urbanization
GPY 202.1(.2)	The Human Use of the Environment	SOC 385.1(.2)	Problems of Development
GPY 302.0	The Geography of World Affairs	SOC 386.1(.2)	Sociology of Developing Societies
MGT 301.1(.2)	Work and Alienation	SOC 387.1(.2)	Women and Development
PHI 310.0	Political Philosophy	SOC 391.0	Rural Sociology
PHI 317.1(.2)	Philosophy of Economics	SOC 401.1(.2)	Fisheries Development in the Third World
PHI 325.1(.2)	Ethical Issues in International Development	SOC 416.1(.2)	Religion in Developing Societies
POL 305.0	International Relations	SOC 420.0	Comparative Regional Development
POL 321.1(.2)	International Organization	SOC 422.1(.2)	Gender and Development: Theory and Method
POL 322.1(.2)	Politics of International Trade	SOC 423.1(.2)	Gender and Development: Policy Issues
POL 330.0	Introduction to Public Administration	SOC 425.0	Corporate Power and the World Economy
POL 418.0	International Law		
POL 445.0	Introduction to Public Policy		

*Courses may be taken at other institutions subject to the approval of the Program Coordinator and the Dean of Commerce.



History (HIS)

Person, Associate Professor
Lecturers

B. Kieseckamp
O. Carrigan, E. Haigh,
C. Howell, J. Morrison,
J. Reid, R. Twomey, F. Young
R. Bollini, J. Lee, W. Mills
M. Vance

Associate Professors
Assistant Professor

Departmental Policy

To obtain a major concentration in history, students must complete at least six (6.0) history credits. These must include:

HIS 400.0

1.0 credit at the 500 level

The remaining 4.0 credits are to be selected to include at least two at the 300 level chosen from different geographical and subject areas as defined below:

(i) North America.

(ii) Europe (including Britain, Russia and the U.S.S.R., Classical Greece and Rome), and the History of Science.

(iii) Asia, Africa, and Latin America.

The program of each student must be approved by the Department.

Prospective honors students should refer to the section of this Calendar pertaining to honors degrees and apply to the Registrar for admission in that program after their first year at the University.

To earn an honors degree, students must satisfy the requirements of the program. They must also complete one additional history credit (1.0) at the 300 level; two additional credits (2.0) at the 500 level, and HIS 500.0 (the honors essay). The program of each student must be approved by the Department.

Students majoring in history are strongly advised to take two credits (2.0) in a foreign language. In the case of students concentrating in Canadian history, French is specified as the recommended language.

Graduate students should refer to the material entitled "Master's Degree" which is found in Section 3 of this Calendar.

General Course Description

History courses numbered at the 200 level are survey courses open to students with no university credits in the discipline. They are usually lecture courses; some combine lectures with small tutorial group meetings.

To register for a course at the 300 or 400 level, a student must have at least one credit (1.0) in history, though it need not necessarily be in the same area of the discipline. Exceptions may be made only with the permission of the Chairperson. 300 and 400-level courses are usually structured to consist of both lectures and seminars.

History courses at the 500 level are normally seminar courses designed for advanced work by history majors and honors students in Years 2 and Year 3, and for Master of Arts students.

History courses at the 600 level are graduate courses. Courses at the 300 level may often be taken for graduate credit and are designated as having two numbers in the Calendar; for example, HIS 300 (640.0). Graduate students taking such courses will be expected to attain a higher level of achievement and may be required to do additional assignments.

With renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level.

21.0 Civilization in the West

A course designed to explore the origins and development of the characteristic political, legal, and cultural institutions of Western civilization and its impact on other cultures.

22.0 The Twentieth Century

A historical approach to the major problems of our time. Emphasis will be placed upon the backgrounds to World Wars I and II, the emergence of the United States as a world power, the Communist Revolution and its impact and the problems of industrial society.

208.0 Global History: 1450 to the Present

The integrated nature of the modern world is taken for granted. How did we arrive at this point? Global history provides a context for understanding this development as we move towards the 21st century. This course will examine the initial links developed between the world's civilizations during the 15th century and will trace factors which led to contemporary global interaction and interdependence.

209.0 East Asia: From Prehistory to Modern Times

This course introduces students to an old but vibrant civilization that is becoming increasingly important in today's world. In addition to the cultural heritage which the countries of East Asia, i.e., China, Korea, Japan, share in common, this course will examine distinct historical experiences of each country and the transformation of East Asia in modern times.

221.0 The British Isles

This course will trace the origins of the British Isles' four nations - Wales, England, Ireland and Scotland - and then examine the factors which led to their assimilation into a British state. The balance of the course will deal with the United Kingdom's political, social and economic development, from the rise to world power to the present trend of decline and fragmentation.

231.0 Canada to Confederation

This course will examine early Canadian history from the time of the first Indian-European contact up until Confederation. Emphasis will be placed on the development of New France/Lower Canada, Upper Canada, and the West. Political, social, and economic themes will be considered.

232.0 Canada: Confederation to the Present

The shape of political culture in modern Canada. The debate between the advocates of the nation state and of federalism and the impact of industrialization, regionalism, war and depression on that debate.

240.0 North American Social History

An introductory survey of Canadian and American social history. Topics such as crime, the permissive society, marriage and the family, prejudice and discrimination, and social welfare will be examined in historical perspective.

250.0 The United States to 1877

A course dealing primarily with the major themes of American history from the colonial period to the Civil War and Reconstruction; the origins and nature of American government, politics, and society; the origins of slavery and racism; expansion. These themes will be approached through a study of the major groups and events in American history (the New England Puritans, the Founding Fathers, Southern slaveholders; the American Revolution, the Civil War), as well as major political figures from Thomas Jefferson to Abraham Lincoln.

251.0 The United States: 1877 to the Present

A course concerned with the impact of modern industrialism on American society since 1877. Included is an analysis of the changing nature of American foreign policy, new relationships between business, labour and agriculture, and the impact of industrialism on liberal democratic thought and culture.

303.0 (603.0) Tudor and Stuart England

This course is a survey of English history from the accession of Henry Tudor in 1485 to the Restoration in 1660. It includes an examination of the Tudor monarchy, the nature, causes and effects of the English Reformation, the Elizabethan Age, the constitutional conflicts during the reigns of James I and Charles I, the Civil War, the establishment of the Commonwealth and the Cromwellian Protectorate.

304.0 (604.0) Europe 1848-1989

An examination of the political, social, and economic history of Continental Europe focusing on France, Germany and Italy from the Revolutions of 1848 to the end of the Cold War. In particular, the social and economic developments underlying the forces of Liberalism, Imperialism, Socialism, Fascism, and Communism, as well as the causes and consequences of World Wars I and II will be considered in some detail.

305.0 (605.0) History of Russia and the U.S.S.R.

An introductory survey beginning with the establishment of Kievan Russia and ending with a glance at Soviet society in the 20th century.

306.0 (606.0) Images and European History

Since its beginning, Western culture has been accompanied by pictures as both illustration and vindication. This is a course about pictures and what can be pictured. Students will deal with much already familiar to them, and sources will range from St. Augustine to the photographers of the Farm Security Administration.

307.0 (607.0) Science In the West Since 1500 A.D.

An examination of the development of western science, concentrating on the period between the Scientific Revolution and the end of the 19th century. The emphasis will be on science as a cultural and intellectual phenomenon.

309.0 (609.0) The Old World and the New: Transformations of European Ideals in Canada and the United States

The European confidence in the nation as the vehicle for the largest aspirations of men in community. Qualifications and revisions of this ideal in North America. War, the structure of law, the limits of rational government. Typically organized, the course will draw from the history of the 18th, 19th and 20th centuries.

310.0 (610.0) Anglo-American History: Studies in Pre-Industrial Labour and Culture, 1600-1865

This course examines "pre-industrial" working people (slave and "free") from a comparative perspective. It begins with an overview of the various historical stereotypes of American and English crowds in the 18th century, American slaves from the 17th to the 19th centuries, the English radical and working class movements at the time of the American Revolution. It then looks at the political, economic and cultural lives and attitudes of these groups. Was there a distinctive "popular culture" in history? Did common people have significant ideas and play an active role in the making of history?

311.0 (611.0) Health, Sport and Leisure in Victorian Society

This course deals with the concern for healthy bodies and minds in Victorian Britain and North America. It will address a range of issues including the professionalization of medicine and psychiatry, attitudes toward body and mind, the preoccupation with moral and physical degeneracy, the rise of organized sport, and the notion of social regeneration.

312.0 (612.0) Medieval Europe: the Birth and Progress of a Great Civilization

With the decline of Imperial Rome, Europeans were obliged to recreate for themselves the basic institutions and practices of a viable society. The course is concerned with their endeavours and achievements, from the first onslaught of the barbarian hordes to the heights of Medieval culture and onward to the dawn of the Renaissance.

313.1(.2) [613.1(.2)] The First British Empire

A study of British colonial expansion from Elizabeth I to George III. This course will concern itself with British overseas endeavours of the "First British Empire", and with Britain's conflicts with the rival overseas empires of Spain, Portugal, Holland and France.

314.1(.2) [614.1(.2)] The British Empire—Commonwealth

A study of British imperial expansion and decline in the 19th and 20th centuries. This course will concern itself with the theory and practice of imperialism of the "Second British Empire", and with the economic basis of British power.

316.1(.2) [616.1(.2)] Africa in the 19th Century, Intrusion and Conquest

This course will outline the nature, values and history of traditional African societies; it will examine the intrusion, partition and conquest of those societies by Europeans in the 'Scramble for Africa'.

317.1(.2) [617.1(.2)] Africa in the 20th Century, Colonialism and Independence

An examination of the activities of the colonial powers in governing the territories and peoples which they had acquired in the 'Scramble'. The course will also study the reactions of Africans to colonialism and the factors which led to independence.

318.0 (618.0) The United States In the 20th Century

A history of the United States in the 20th century with the main emphasis on political development.

319.0 (619.0) Canadian-American Relations

This course will examine basic developments in Canadian-American relations. Political as well as social, economic and religious trends will be analyzed. Some opportunity will be afforded students to use the vast quantity of primary source material at the Public Archives of Nova Scotia.

320.0 (620.0) The Atlantic Provinces and New England 1534-1974

An examination of the relationship of New England and the Atlantic Provinces undertaken from a comparative point of view. This course deals with political, economic and religious trends common to the experience of both communities.

322.0 (622.0) South Africa

A study of the complex relationships and conflicts arising from different cultures, religions and skin colours from the 17th century to the "apartheid" state of the mid-20th century.

323.0 (623.0) China Before 1800

This course studies the history of China from the earliest times to the end of the 18th century. The first term covers up to around A.D. 960 the remainder is dealt with in the second term. Special attention will be paid to the changes in cultural, institutional and societal patterns over the time.

324.0 (624.0) Traditional Japan: History and Culture

Following the history of Japan from the beginning to the middle of the 19th century, this course will study the shaping of cultural, institutional and social features which exert a powerful influence down to this day. The emphasis will be on understanding the factors which have given Japan a distinct outlook and the Japanese a strong sense of uniqueness.

325.0 (625.0) Asian Crossroads: Southeast Asia from 1600 to Independence

This course will concentrate on the vibrant and sometimes turbulent countries of Southeast Asia. This area, including Burma, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam, has been a confluence for commercial trade and cultural influence for centuries. The course will begin with the indigenous kingdoms and societies, trace European, American, and Asian expansionism and the resultant resistance to it, and examine the rise of the nationalist movements leading to independence in the second half of this century.

326.1(.2) [626.1(.2)] History of West Africa: 1600 to 1960

This course will examine the age of African empires, the European intrusion and imperial expansion, the Islamic revolution, and the slave trade through to independence in the 1960s. The course will also include some analysis of methodology used in African history including archaeology and oral tradition.

329.0 (629.0) History of Canada 1849-1920

This course deals with the problems arising from the attempt to build a British North American nation in the age of Macdonald and Laurier.

330.0 (630.0) American Social and Intellectual History

Broadly defined, a study primarily of the political and social thought of a variety of groups in American history from the colonial period to the present. Special emphasis on the history and current status of the American conservative, radical and liberal traditions. Groups, ideas, themes may differ from year to year.

331.0 (631.0) The American Revolution, 1763-1789

A consideration of the causes and consequences of the American Revolution from several viewpoints - including military, political, social, economic, religious - and the Loyalist experience.

332.0 (632.0) Canadian Social History, 1760-1930

This course will trace the development of British North America from a group of predominately agricultural, rural French-English colonies to an industrialized, urban, mixed-ethnic nation. Particular attention will be given to the process of Canadianization and the impact of industrialization on social institutions, working conditions, cultural activities, political ideas and economic development between 1867-1930.

333.0 (633.0) History of Canada In the 20th Century

A course designed to examine the emergence of Canada's social, political and economic structures in the 20th century. Some attention will also be given to Canada's role as an emerging world power, her relationship with the United States and her role within the British Empire and Commonwealth.

630.0 (634.0) Myth and History: The Problem of Interpreting Human Existence

This course will examine man's search for meaning. The life of man in relation to his own past and that of his communities; the question put to Marc Bloch: "Papa, what good is history?"

630.0 (639.0) Russia and the U.S.S.R. Since 1917

This course will deal with Russia and the Soviet Union from the abdication of Tsar Nicholas II to the post-Khrushchev period. There will be an attempt made to examine the discrepancies between the theory of communism and its practice, and the possible reasons for any discrepancy. Some time will be spent considering the situation of religion, culture and the arts in the U.S.S.R.

630.0 (640.0) History of the Atlantic Provinces

Beginning with the earliest European contact with the region, this course will concentrate on the period after the beginning of permanent settlement. Special emphasis will be given to Nova Scotia as an area of severe clashes between the Indian and European cultures, of intense English-French rivalry, and later of the problems of adopting traditional British models of government, settlement, and society to a colonial region.

630.0 (642.0) China in Revolution: 1840 to the Present

Chinese history since the middle of the 19th century has been one of continuous turmoil and upheaval. In addition to probing into the major developments and the factors responsible for them, this course will examine social, economic and cultural changes which have come about as a result.

630.0 (643.0) To the Great War

Between the time of Napoleon and World War I, Europeans came to agree to a remarkable extent on a lexicon of political concepts such as honor, duty, citizen/subject, nation and democracy. This course will examine these and similar concepts, particularly the consensus with respect to war as both a supreme test of the community and the agency of its freedom. Emphasis is on Britain, France and Germany.

630.0 (644.0) History of Nova Scotia

This course will examine political, economic and intellectual aspects of Nova Scotian development.

630.1(2) [646.1(2)] Black Heritage in Maritime Canada

This course will provide a historical survey of the Black population in Maritime Canada, its origins, socio-economic conditions and evolution to the present.

630.0 (647.0) Blacks in Canada

This course dealing with Black history in Canada to the present. Issues to be addressed include Black immigration and settlement, slavery, Black Loyalism, colour and prejudice, religion and education, characteristics and institutions of the Black community, Black identity, and contemporary institutions and values.

630.0 (649.0) Canadian Labour History

This course examines the development of labour in Canada in both its institutional and non-institutional forms, during the years 1800 to 1900. Topics will include the frontier labourer, growth of trade and industrial unions, conditions of living and working, class structure, women in the workplace, farmer-labour coalitions, worker education, labour press, and strike activity.

630.0 (650.0) Cross-listed as CLA 303.0 History of Greece

630.0 (651.0) Cross-listed as CLA 304.0 History of Rome

630.0 (660.0) A History of Women in the Western World

This survey which examines the role of women in western civilization from the post Roman and early Christian world to the 20th century. This course will especially concern itself with an historical perspective of women's participation in the social and economic life of their communities.

630.1(2) [661.1(2)] Canadian Business History, 1820-1867

Between 1820 and Confederation, British North Americans came to accept the view that the development of an enterprising business sector was necessary for the survival of a British nationality in North America. This course will examine the origins of this consensus and its impact it had on the way the business community conducted its affairs in the period 1820 to 1879.

630.1(2) [662.1(2)] Canadian Business History, 1867-1920

In this period, corporate business in Canada increasingly came to identify its objectives and goals with those of the nation. This course will examine how this self-understanding determined both the corporate strategy of the business sector and the contribution it made to society at large.

372.1(2) [672.1(2)] Common History: Sources and Methodology

This course will examine local history with particular reference to the Atlantic Region. Documentary and non-documentary sources will be examined and methodology for local history research established. This course will be of interest to those who have an interest in local, ethnic and family history.

373.1(2) [673.1(2)] Voices of the Past: Oral Research Methodology

This course examines historical methodology with particular attention to the use of oral research. In areas where there is little documentation, such as labour, ethnic or community history, oral research is of vital importance and represents, in an age of instant communication, an integral part of contemporary history. The theoretical and practical use of oral sources will be examined and methodology, technique and interviewing experience will be included with particular reference to the Atlantic region.

374.0 (674.0) Hanoverian to Victorian Britain

In the modern age Britain was transformed from a small island nation on the fringes of Europe to a leading world power. This course will examine the origin and consequences of this transformation by charting the progress of political, social and economic change.

375.0 (675.0) Modern Latin America

A survey of the emergence and historical development of the Latin American nations since their independence from Spain and Portugal in the early 19th century. The course will focus especially on the political, economic and social evolution of the more populous nations.

376.1(2) [676.1(2)] Special Topics: U.S. History, 1800-1930

Further details are available from the Chairperson of the Department.

377.1(2) [677.1(2)] - 379.1(2) [679.1(2)] Selected Topics in History

The subject matter of particular half courses will be announced from time to time. They will cover aspects of history in one or more of the three major geographical areas of North America, Europe and the Third World. The topics to be examined will be determined by the instructor.

381.1(2) [681.1(2)] East Asia and the West to 1800

This course studies the relationship between East Asia and the West from earliest times to the end of the 18th century. Topics for examination include trade, cultural exchange, the role of nomadic peoples in the East-West exchange, and the impact of the European exploration since the late 15th century.

382.1(2) [682.1(2)] East Asia and the West Since 1800

This course studies the changing nature of relationship between East Asian countries and the West since the early 19th century. Topics for examination include the encroaching of Western imperialism, the impacts of such developments of Western origin as the industrial revolution, the two World Wars, and the Cold War on East Asia, and the Westernization of East Asian values, mores, and customs.

383.1(2) [683.1(2)] Sexuality, Love, and Marriage in East Asia

By examining selected topics on sexuality, love, and marriage in East Asia, this course seeks for a greater understanding of East Asian societies and cultures. The approach will be both historical and cultural. Possible topics for examination include the institutions of marriage and family, love in art and literature, sexual mores and practises, gender roles, and the status of women.

385.0 (685.0) Aspects of Global History: One Earth, Many Worlds

[IDS 385.0]

Prerequisite: a course in history.

Selected African, Asian and Latin American societies will be examined especially with regard to the impact of European expansion and conquest on what is now called the Third World. Various economic, political, and social themes will be studied to provide a context for understanding the forces and events which led to the rise of the 'global village' of the 1990s.

388.1(2) [688.1(2)] Early Celtic Britain

[IRS 388.1(2)]

Britain's Celtic past is shrouded in myth and legend. This course will provide students with the historian's and archeologist's understanding of this same period by exploring the origin of the Celtic peoples in the British Isles and examining the impact of Roman, Anglo-Saxon, Viking and Norman invasions.

389.1(2) [689.1(2)] Medieval Celtic Britain**[IRS 389.1(2)]**

Ireland, Scotland and Wales were challenged by the threat of English domination throughout the medieval era. This course will examine the ability of each Celtic kingdom to resist this trend, as well as measure the degree to which Celtic institutions, language and culture were transformed in the process.

392.0 (692.0) Modern Japan

This course studies the history of Japan from the revolution in 1867 to the present. The emphasis will be on the developments which made a feudal and isolated society emerge as a premier industrial power and a modern democracy.

393.0 (693.0) History of British North America, 1763-1867

This course will examine the major social, economic, religious and intellectual trends evident in British North America in the period following the Treaty of Paris of 1763. Special attention will be given to the rise of national consciousness and of civil religion in Canada West and to the impact these developments had on French and Maritime Canada.

394.1(2) [694.1(2)] The Emergence of Modern Korea

This course studies the history of Korea from the opening of the country in the late 19th century to the present. The turbulent experience of the Koreans, which included the colonial domination by Japan, the partition of the country, and a civil war, will be examined against the backgrounds of Korea's own past as well as the global situation.

395.0 (695.0) Ireland, 1600-1985: From the Plantations to the "Troubles"**[IRS 395.0]**

This course will concentrate on Ireland's transition from a colony, for English and Scottish settlers, to an independent state in the European community. Emphasis will be placed on the cultural and political legacy of the 17th century plantations, as well as the consequences of Irish nationalism for Britain and its empire. The development of the "Ulster Question" will be examined in the last section of the course.

Classes 1 1/4 hrs. and seminar 1 1/4 hrs. a week. 1 semester.

396.1(2) [696.1(2)] China and Japan In the 20th Century: Ideology, State and Society

This course compares and contrasts the experiences of China and Japan in the 20th century. The emphasis will be on the causes and consequences of the rise of such ideologies as nationalism, fascism and socialism in these countries.

399.0 (699.0) The Lingering Death of Imperial Britain, 1870-1982

This course will outline Britain's late 19th century decline. Emphasis will be placed on transitions - "new imperialism" to decolonization; industrial supremacy to collapse; Labour socialism to Thatcherism. The particular impact of two world wars and the rise of Scottish and Welsh nationalism will be explored.

400.0 (600.0) The Discipline of History

This course addresses the nature of historical study, that is, the theories, methods, principles and problems associated with the discipline of history. It examines the following basic areas of historical inquiry: the purposes of historical study; the relevance of the past; the relationship between the past and present; the nature and validity of historical knowledge; the relationship of history to other disciplines; and the current state of historical explanations and of historical explanation as such.

500.0 The Honors Essay

Prerequisite: admission to the final year of the honors program.

History honors students are required to submit and defend a substantial essay to be selected and prepared in conjunction with a faculty advisor.

Classes: Individual study and the supervision of a faculty advisor.

502.0 Local History: Halifax, A Case Study

Prerequisite: registration in major or honors program in history or permission of instructor.

This course will examine the theoretical and methodological approaches to the study of local history using Halifax as a model. Oral and archival research will be utilized and the case study will be placed in the broader perspective of social history themes of ethnicity, labour, family and women's studies.

510.0 Global History: History and Historians

Prerequisite: one of HIS 313.1(2)/314.1(2) or 385.0; or a history major with Year 3 standing.

This seminar in global history will examine selected topics in world history from 1400 to the present. It is intended for honors and graduate students. Topics to be examined include major themes of global history; historiography; and historians such as W. McNair, S. Stavrianos, and A. Toynbee who have taken a global approach to the study of the past.

511.0 Modern East Asia, Selected Problems in Modernization

Prerequisite: HIS 209.0.

The influence of the West on the modernization efforts of China and Japan during the 19th and 20th centuries.

515.0 Seminar in Historiography

Prerequisite: Year 3 or graduate standing.

A specific historical period or topic will be selected by the instructor and each student will be assigned a particular historian or historical school for the purpose of writing a paper. The seminar will address a variety of historical viewpoints and demonstrate the influence of one milieu on the writing of history.

517.0 Seminar in Modern British History

A seminar on selected topics in the history of modern Britain, 1660-1870, intended for history students in their graduating year. Topics for consideration will be chosen by the instructor and students will be required to present papers to the seminar for discussion, criticism and evaluation.

518.0 Seminar in Early Modern History

Prerequisite: Year 3 standing or permission of instructor.

A seminar on selected topics in the history of Early Modern Europe, 1450-1800, intended for history students in their graduating year. Topics for examination will be selected by the instructor and students will be required to research and write a major paper on the subject and present it to the seminar for discussion and criticism.

519.0 Seminar in Modern European History

A seminar on selected topics in the history of modern Europe, 1800 to present, intended for history students in their graduating year, honors, and graduating students. Topics to be examined will be selected by the instructor; students will be required to research and write a major paper on the topic selected, and present it to the seminar for discussion and criticism.

520.0 The Two World Wars

This course will consider the origins of each of the two world wars of the early 20th century, and the diplomacy, war-aims, and conduct of the war by each of the principal belligerents. The first semester will be devoted to World War I and the second semester to World War II.

522.0 Seminar in North American History

A seminar on some aspects of North American history (Canadian, American, or comparative) intended for history students in their graduating year. Topics to be examined will be determined by the instructor. Among them will be: nationalism, religion, reform/radicalism, slavery, liberal democracy and culture, regional history, populism and progressive reform.

523.0 Seminar on North American Social History

Prerequisite: Year 3 standing or permission of instructor.

This seminar will offer an in-depth study of the historical background of specific social problems. Research topics will be selected from the following subject areas: crime, the permissive society, marriage and the family, prejudice and discrimination, and social welfare.

524.0 The U.S.S.R.

Prerequisite: students should have completed 1.0 credit in European history.

A seminar covering 1917 to 1991. Topics will include the theory and practice of communism, nationalism, terror, World War II, culture in the totalitarian state and the dilemma of reforms.

535.0 Northeastern North America, 1480-1720

Prerequisite: enrolled in major or honors program in history or permission of instructor.

This course will examine the history of native and Euro-american societies, and the interaction between them, in the era of early contact and colonization. "Northeastern North America" will be defined to include the territories known to Europeans by 1720 as

foundland, Acadia/Nova Scotia, New England, New York and Canada.

690.0 History and Society: The Atlantic Provinces Seminar

Prerequisite: honors or graduate standing.

This course, intended for master's students in Atlantic Canada studies and honors and master's students in history, addresses the nature of historical inquiry into issues relating to the social and economic history of the Atlantic region. Topics to be covered will include regional culture, gender and race, the family, processes of development and underdevelopment, scientism and professionalization, health, recreation and sport. Students who have completed HIS 560.0 are not eligible to enroll in ACS 660.

590.1(.2) Reading Course in History - Selected Topics in Irish History

Prerequisite: permission of instructor.

An independent reading course in selected topics in Irish history, primarily social, political and intellectual history in the 18th and 19th centuries. Topics include: Irish popular and radical movements and diaspora in a transatlantic context; Ireland in the Age of the Democratic Revolutions; the Irish in America and Canada; Irish political institutions and political culture. Readings, consultations, and final paper.

590.1(.2)-599.1(.2) Reading Courses in History

Prerequisite: permission of instructor.

Each reading course will be organized by the instructor(s) involved. In general, each course will be centred round a specific theme, and the students will be expected, through their reading, to be familiar with all aspects of the chosen area. Examinations and/or papers will be required at the end of each course.

690.0 Thesis Research

Prerequisite: graduate standing.

The students will be engaged in research for and the writing of an Master of Arts thesis under the supervision of an advisor.

Cross-Listed Courses

Certain courses offered by the Departments of Modern Languages and Classics, Anthropology and Religious Studies may, in special circumstances, be cross-listed and counted in a student's history concentration. In such cases, the student must obtain the Department's permission.



Our maritime heritage

Image Studies (IST)

Committee on Image Studies

P. Bowlby, Coordinator
 R. Bollini
 J. Graham
 U. Kelly
 M. Larsen
 H. McGee
 E. Stiegman, Professor Emeritus
 G. Thomas

Religious Studies
 History
 Philosophy
 Education
 English
 Anthropology
 Religious Studies
 Classics

The Minor Program

Pictures have always played an important part in interpreting human experience. They take a variety of forms from film to photograph, from woodcut to painting, from sculpture to drawing. This minor offers students the opportunity to examine, from the critical perspective of several disciplines, both the attributes and cultural functions of images.

Students may declare a minor in Image Studies after consultation with the Coordinator.

A minor in Image Studies requires successful completion of four credits (4.0) accredited in the Image Studies curriculum. Courses must be selected from at least three departments involved in the Image Studies Program. Prerequisites for courses in the Image Studies Program can be waived only with the permission of the course instructor.

Courses in the Image Studies Minor

ANT 327.1(.2) Ethnology: Japan
 ANT 365.1(.2) Myth: Anthropological Approaches
 ANT 366.1(.2) Worldview: Anthropological Approaches
 CLA 201.1(.2) The Mythology of Greece and Rome I
 CLA 202.1(.2) The Mythology of Greece and Rome II
 CLA 203.1(.2) Art in Greece and the Ancient Near East
 CLA 204.1(.2) Art in Rome and Christian Europe to the 14th Century
 EDU 615.0 Media Studies and Education
 EGL 313.0 Narrative in Fiction and Film
 HIS 306.0 Images and European History
 PHI 348.1(.2) Aesthetics: The Work of Art, The Artist
 PHI 349.1(.2) Aesthetics: The Aesthetic Experience
 PHI 407.1(.2) Philosophy of Perception
 REL 337.1(.2) Hindu and Buddhist Religious Art
 REL 338.1(.2) Religion and Art: The West
 REL 339.1(.2) Images or Idols?



International Development Studies (IDS)

Committee on International Development Studies

H. Veltmeyer, Coordinator	Sociology
P. Arya	Economics
G. Barrett	Sociology
G. Cameron	International Development Studies
J. Chamard	Management
T.S. Chan	Marketing
T. Charles	Finance and Management Science
L. Christiansen-Ruffman	Sociology
P. Connelly	Sociology
H. Das	Management
D. Day	Geography
J.C. Dodds	Finance and Management Science
S. Halebsky	Sociology
A. Harvey	Economics
J. Lee	History
M. MacDonald	Economics
H. Millar	Finance and Management Science
J. Morrison	History
A. Mukhopadhyay	Economics
A. O'Malley	Sociology
I. Dkraku	Sociology
H. Ralston	Sociology
J. Sagebien	Marketing
R. Sargent	Education
H. Schwind	Management
L. Van Esch	Marketing
S. Wein	Philosophy
J. Woolfrey	International Education Centre
Adjunct Professors	K. Ahoonja-Patel, C. Amaratunga J. Kirk, S. Patel, T. Shaw

The undergraduate program in International Development Studies is offered collaboratively between Saint Mary's and Dalhousie Universities. "Development" is a broad concept and refers to problems that range from the socio-economic impact of a new hydroelectric dam to the rapid changes in family structure and sex roles that often occur during periods of rapid demographic and economic change. As the list of recommended courses below demonstrates, "development" has political, social, cultural, economic and historical dimensions. The International Development Studies program combines theoretical insights and practical skills from both the social sciences and the humanities. The goal is to help students take a multidisciplinary approach to problems of development and the possibilities for change in countries that loosely comprise what has been termed The Third World in the context of an increasingly global political economy.

A program in International Development Studies can be taken towards a Bachelor of Arts or Bachelor of Arts (Honors) degree at either university. A degree in International Development Studies can also be combined with a degree in one of the major disciplines involved in the program. Joint major concentrations can be worked out by consultation with an International Development Studies Coordinator and the relevant department at either university.

In addition to the general university requirements for a Bachelor of Arts degree, the following requirements will also apply to a program in International Development Studies:

The Major Program

1. appropriate first year (200-level) courses including, as per Faculty of Arts regulation 3-d, at least one credit (1.0) from the following social science electives: ANT 200.0, ECO 201.1(.2)/202.1(.2), POL 200.0, and SOC 200.0.

2. the equivalent of six credits (6.0) approved for the program, of which:

- (i) two (2.0) must be IDS 300.0 and IDS 400.0;
- (ii) at least one (1.0) must be ECO 310.1(.2); ECO 410.1(.2); SOC 385.1(.2); or SOC 386.1(.2);

(iii) the remainder (3.0) must involve at least two established disciplines within IDS; and

(iv) five (5.0) must be at the 300 level or above, with at least one seminar at the 400 level exclusive of IDS 400.0.

The Minor Program

The equivalent of four credits (4.0) approved for the program, of which:

- a. one (1.0) must be IDS 300.0;
- b. one (1.0) must be ECO 310.1(.2), ECO 410.1(.2), SOC 385.1(.2), SOC 386.1(.2);
- c. the remainder (2.0) must include at least two disciplines within IDS.

The Honors Program

For the Bachelor of Arts (Honors) degree in International Development Studies, all students must complete no fewer than ten credits (10.0) from the International Development Studies Program, of which:

- a. three (3.0) must be IDS 300.0, 400.0 and 500.0;
- b. two (2.0) must be ECO 310.1(.2), ECO 410.1(.2), ECO 312.1(.2), ECO 315.1(.2), SOC 385.1(.2), SOC 386.1(.2);
- c. a minimum of two credits (2.0) must be taken in at least two different established disciplines within International Development Studies;
- d. eight (8.0) must be at the 300 level or above, with at least one seminar at the 400 level exclusive of IDS 400.0;
- e. courses must be approved by a program advisor or the Coordinator.

Although not officially required, it is strongly recommended that students in IDS gain competency in an appropriate second language.

Listing of Approved Courses (asterisk marks core courses in specific disciplines which should be taken before others in these disciplines)

Anthropology

201.0	Women: A Cultural Perspective
301.1(.2)	Nature of Culture
302.1(.2)	Social Organization
310.0	Applied Anthropology: Culture Change and Development
315.0	Peasant Society and Culture
320.0	World Ethnology
325.0	Ethnology: Oceania
335.0	Psychological Anthropology

Asian Studies

410.1(.2)	Special Topics on Japan
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Economics

*310.1(.2)	Development Economics
312.1(.2)	History of Economic Thought
313.1(.2)	International Finance
315.1(.2)	Comparative Economic Systems
323.1(.2)	Soviet-Type Economies
*410.1(.2)	Issues in Economic Development
414.1(.2)	International Trade

Finance and Management Science

476.1(.2)	International Financial Management
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Geography

330.0	Geography of China
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History

208.0	Global Geography: 1450 to the Present
209.0	East Asia: From Prehistory to Modern Times
316.1(.2)	[616.1(.2)] Africa in the 19th Century, Intrusion and Conquest
317.1(.2)	[617.1(.2)] Africa in the 20th Century, Colonialism and Independence
322.0 (622.0)	South Africa
323.0 (623.0)	China Before 1800
342.0 (642.0)	China in Revolution: 1840 to the Present

- 375.0 (675.0) Modern Latin America
381.1(.2)
[681.1(.2)] East Asia and the West to 1800
382.1(.2)
[682.1(.2)] East Asia and the West Since 1800
*385.0 (685.0) Aspects of Global History: One Earth, Many Worlds
396.1(.2)
[696.1(.2)] China and Japan in the 20th Century
511.0 Modern East Asia, Selected Problems in Modernization

Management

- 488.1(.2) International Business Management

Marketing

- 375.1(.2) International Marketing

Modern Languages and Classics - Spanish

- 305.0 Culture and Society of the Dominican Republic

Philosophy

- 325.1(.2) Ethical Issues in International Development

Political Science

- 305.0 International Relations
322.1(.2) Politics of International Trade
418.0 International Law
553.0 International Studies Seminar

Religious Studies

- 312.1(.2)
[412.1(.2)] Jesus and Liberation
341.1(.2)
[441.1(.2)] Political Theology: East and West
347.1(.2)
[447.1(.2)] Ecology and Religion

Sociology

- 319.0 Reform and Revolution in Latin America
331.1(.2) Modernization and Aging
333.0 Social Movements
380.0 Third World Urbanization
*385.1(.2) Problems of Development
*386.1(.2) Sociology of Developing Societies
387.1(.2) Women and Development
391.0 Rural Sociology
401.1(.2) Fisheries Development in the Third World
403.0 Revolution and Change: A Case Study - Cuba
416.0 Religion in Developing Societies
420.0 Comparative Regional Development
422.1(.2) Gender and Development: Theory and Method
423.1(.2) Gender and Development: Policy Issues
425.0 Corporate Power and the World Economy
447.1(.2) Work and the Empowerment of Women in India

220.0 Development Studies Through Canada World Youth and Crossroads International

Prerequisite: assignment with Canada World Youth (hereafter CWY).

This course is intended for CWY and Crossroads International participants who wish to earn academic credit related to their work in the Third World. It includes predeparture tutorials. CWY registrants will receive supervised readings in development studies and directions for field observations. They will be required to keep a journal on their observations and to prepare a research proposal for which they will collect materials while in the Third World. On returning to Canada they will communicate regularly with their advisor as they prepare a brief report on their field experience and an original research paper for evaluation.

300.0 Introduction to Development Studies

Prerequisite: one of ANT 200.0, ECO 201.1(.2)/202.1(.2), POL 200.0, or SOC 200.0.

This course will introduce students to the scope and nature of Development Studies. Its main emphasis will be on various theories of development and social change in under-developed and developing countries, and on the lines of research associated with these theories. Students will review the contributions that various disciplines have made to development studies; and they will examine the ways in which these interact and complement each other in the explanation of changing conditions and societies in under-developed and developing countries.

315.0 Cross-listed as ANT 315.0 Peasant Society and Culture**385.0 Cross-listed as HIS 385.0 (685.0) Aspects of Global History: One Earth, Many Worlds****386.1(.2) Cross-listed as SOC 386.1(.2) Sociology of Developing Societies****400.0 Seminar in Development Studies**

Prerequisite: IDS 300.0.

In this course students will begin to apply some of the theoretical perspectives and analytical tools of Development Studies or one of its related disciplines to a selected problem of development in one particular region of the world; selected regions include Southern Africa, Tropical Africa, North Africa and the Middle East, South-East Asia, South Asia, the Caribbean and Latin America. Theoretical and policy implications and various case studies will be discussed. Presentations of student work will be preceded by presentations by faculty associated with the Development Studies Consortium.

420.1(.2) Special Topics in Development Studies

Prerequisite: IDS 300.0.

This course will investigate in some depth a particular topic or set of topics in Development Studies. The specific topic(s) will vary from year to year, depending on the availability of visiting scholars, invited research fellows, or the research plans of associated faculty.

421.1(.2) Special Topics in Development Studies

Prerequisite: IDS 300.0.

This course will investigate in some depth a particular topic or set of topics in Development Studies. The specific topic(s) will vary from year to year, depending on the availability of visiting scholars, invited research fellows, or the research plans of associated faculty.

422.1(.2) [622.1(.2)] Cross-listed as SOC 422.1(.2)/WMS 422.1(.2) Gender and Development: Theory and Method**423.1(.2) [623.1(.2)] Cross-listed as SOC 423.1(.2)/WMS 423.1(.2) Gender and Development: Policy Issues****450.0; 451.0; 452.1(.2)-455.1(.2) Directed Study**

Prerequisite: IDS 300.0 or permission of coordinator.

These courses provide an opportunity for students to study, in depth topics not normally covered by regular course offerings. Students are expected to demonstrate some initiative and independence.

470.1(.2) [570.1(.2)] Environment and Development

Prerequisite: IDS 300.0 or permission of instructor.

This seminar will explore the implications for world economic development of the rising tide of "environmental problems", as well as the question of what "economic development" might mean in the context of tackling the growing disruption of the global ecosystem. The importance of a sociological and political-economic analysis of the problems of environmental disruption will be emphasized as the basis for understanding the threat which environmental problems pose for the very existence of human kind and certain patterns of economic development.

485.1(.2) Cross-listed as SOC 385.1(.2) Problems of Development**500.0 Honors Essay in Development Studies**

Prerequisite: IDS 400.0.

Master of Arts in International Development Studies

Detailed requirements for the Master of Arts in International Development Studies are found in Section 3 of this Calendar.

Courses Approved for the Master's Program

- | | |
|---------------|---|
| IDS 510.0 | Seminar on International Development |
| IDS 520.1(.2) | |
| [620.1(.2)] | Research Methodology |
| IDS 530.1(.2) | |
| [630.1(.2)] | Contemporary Development Planning |
| IDS 540.1(.2) | |
| to 545.1(.2) | Special Topics in International Development |
| IDS 547.1(.2) | Work and Empowerment of Women in India |
| IDS 550.1(.2) | |
| to 555.1(.2) | Directed Readings |
| IDS 560.1(.2) | Field Research in Development |
| IDS 570.1(.2) | Environment and Development |
| IDS 600.0 | Development in a Global Context |

IDS 610.1(.2)	Problems in International Development
IDS 620.1(.2)	Research Methodology
IDS 622.1(.2)	Gender and Development: Theory and Method
IDS 623.1(.2)	Gender and Development: Policy Issues
IDS 640.1(.2) to 645.1(.2)	Special Topics in International Development
IDS 650.1(.2) to 655.1(.2)	Directed Readings
IDS 660.1(.2)	Field Research in Development

Courses Offered by Associated Departments at Saint Mary's University

ECO 409.1(.2)	Econometric Modelling and Forecasting
ECO 410.1(.2)	Issues in Economic Development
ECO 414.1(.2)	International Trade
ECO 490.1(.2)	Seminar in Economics
ECO 501.1(.2)	Economics of Enterprise Environment
ECO 690.1(.2)	Seminar in Economics
EDU 651.1(.2)	Comparative Education I
EDU 652.1(.2)	Comparative Education II
EDU 675.0	Global Issues and Education
EDU 676.0	Education and Development
FIN 676.1(.2)	International Business Finance and Banking
HIS 616.1(.2)	Africa in the 19th Century, Intrusion and Conquest
HIS 617.1(.2)	Africa in the 20th Century, Colonialism and Independence
HIS 622.0	South Africa
HIS 623.0	China Before 1800
HIS 642.0	China in Revolution: 1840 to the Present
HIS 675.0	Modern Latin America
HIS 685.0	Aspects of Global History: One Earth, Many Worlds
HIS 691.0	East Asia and the West
HIS 696.1(.2)	China and Japan in the 20th Century
MGT 681.1(.2)	International Business Management
MKT 675.1(.2)	Multinational Marketing
POC 420.0	Comparative Regional Development
POC 423.1(.2)	Gender and Development: Policy Issues
POC 425.0	Corporate Power and the World Economy

IDS 500.0 Seminar on International Development

Students will be expected to formulate a project on a problem of international development and present it, by stages, in a seminar of honours and first-year master's students. Students are expected to demonstrate initiative and capacity for self-directed research. Those who have received credit for IDS 500.0 cannot take this course.

IDS 620.1(.2) [620.1(.2)] Research Methodology

See 620.1(.2) described below.

IDS 630.1(.2) [630.1(.2)] Contemporary Development Planning

See 630.1(.2) described below.

IDS 640.1(.2)-645.1(.2) Special Topics in International Development

These courses will investigate in some depth a particular topic or set of topics in international development. Specific topics will depend on availability of visiting scholars, invited speakers and research plans of associated faculty.

IDS 647.1(.2) Cross-listed as SOC 447.1(.2) Work and the Empowerment of Women in India

IDS 650.1(.2)-655.1(.2) Directed Readings

These courses provide an opportunity for students to pursue in depth topics not normally covered by regular course offerings. Students are expected to demonstrate some initiative and independence.

IDS 660.1(.2) Field Research in Development

This course will provide an opportunity for students to pursue a supervised research program in the field. The research and project report must be approved by the Coordinator of the IDS Program.

IDS 670.1(.2) Environment and Development

See 470.1(.2) described above.

IDS 690.0 Development In a Global Context

This course places the dynamics and problems of third world development in a global context and reviews the theoretical, historical and policy issues involved. Students are expected to apply a set of these issues in a specific regional setting.

610.1(.2) Problems in International Development

A seminar in which faculty and graduate students will present their research and review general questions of research design and analysis. Students will also present progress reports on their thesis proposal, approval of which by the instructor and a designated second reader is the principal course requirement.

620.1(.2) Research Methodology

Basic techniques of research design and quantitative/qualitative analysis are reviewed and applied to a selected range of development problems. Those who have received credit for IDS 520.1.2 cannot take this course.

622.1(.2) Cross-listed as SOC 422.1(.2)/WMS 422.1(.2) Gender and Development: Theory and Method

623.1(.2) Cross-listed as SOC 423.1(.2)/WMS 423.1(.2) Gender and Development: Policy Issues

630.1(.2) Contemporary Development Planning

This course is designed to examine the approach to development planning in various contemporary contexts. First, the origins, expectations, methods and achievements of planning in the period 1950-1975 are analyzed. After surveying the next decade of disenchantment with national planning, the realities of development planning are assessed in the context of the mixed economy, centralized state-control, democratic socialism, and IMF management. How to plan on the basis of different development strategies is then examined, before concluding with an assessment of the effectiveness, limitations and future of development planning. Students who have taken IDS 545.1(.2) Contemporary Development Planning, cannot take this course.

640.1(.2)-645.1(.2) Special Topics in International Development

These courses will investigate in some depth a particular topic or set of topics in international development. Specific topics will depend on availability of visiting scholars, invited speakers and research plans of associated faculty.

650.1(.2)-655.1(.2) Directed Readings

These courses provide an opportunity for students to pursue in depth topics not normally covered by regular course offerings. Students are expected to demonstrate some initiative and independence.

660.1(.2) Field Research in Development

This course will provide an opportunity for students to pursue a supervised research program in the field. The research and project report must be approved by the Coordinator of the IDS Program.

690.0 Thesis Research

Prerequisite: enrollment in the Master of Arts, International Development Studies.

Students will engage in the research for and writing of a thesis under supervision of a graduate committee. Credit for the course will be determined when the student satisfies the thesis advisor that thesis research and all other methodological and disciplinary preparation for the successful handling of the thesis topic have been completed. Supervisors may require a demonstration of language competence or extra course work as preparation for the treatment of certain thesis topics.

691.0 Practicum

Prerequisite: enrollment in the Master of Arts, International Development Studies.

Students will be directly involved in an approved development project for at least eight months. Credit for the course will be based on submission of a Practicum Report that evaluates the program of activities undertaken by the placement organization.

Irish Studies (IRS)

C. Byrne, Professor
P. Ó Siadhail, Assistant Professor

Coordinator
The Thomas D'Arcy McGee
Chair

The Minor Program

At the present time the University offers a minor program in Irish Studies but not a major.

The following program constitutes a minor in Irish Studies according to the "Requirements for the Degree of Bachelor of Arts" as stated above in Section 3:

IRS 201.1(.2) An Introduction to Modern Irish
IRS 202.1(.2) Modern Irish Language
and the equivalent of at least another three credits (3.0).

201.1(.2) An Introduction to Modern Irish

This course will introduce students to Modern Irish, with emphasis on the spoken and written forms.

202.1(.2) Modern Irish Language

Prerequisite: IRS 201.1(.2) or permission of instructor.

This course will develop the student's ability to speak, write and read Modern Irish.

304.0 An Introduction to Scottish Gaelic

This course provides an introduction to Scottish Gaelic, a language that holds the key to an essential part of Scotland's cultural heritage. Emphasis will be placed on the language in both its spoken and written forms.

305.1(.2) An Introduction to Mediaeval Welsh Language

Mediaeval Welsh, a P-Celt language, is a valuable tool in the study of the Celtic tradition, giving the student an insight into the non-Gaelic mediaeval cultures of Wales and southern Scotland, and the related culture of Brittany.

306.1(.2) An Introduction to Mediaeval Welsh Literature

Prerequisite: IRS 305.1(.2) or permission of instructor.

This course will introduce students to the literature of the most important of the non-Gaelic Celtic languages, Welsh. Of the group of P-Celt languages, Welsh is the only one with a large extant collection of early and mediaeval literature. The traditions, motifs and metaphors of such works as *The Gododdin* and *The Four Branches of the Mabinogi* are very similar to those of Gaelic (Irish and Scottish) literature. Where they differ, it is largely as a result of early contact with Anglo-Norman culture. A study of Welsh literature, therefore, leads to an enhanced understanding of the Celtic identity.

307.0 Celtic Literature and Atlantic Canada

This course will focus on the following themes: the nature of traditional oral and written Celtic literature, aspects of the history of Celtic scholarship, the literary response to the changes in British and European Celtic culture leading to the emigrations in the 18th and 19th centuries, the survival of the Gaelic language and Gaelic culture in Newfoundland and the Maritimes into the 20th century, and the Irish, Scottish and Welsh contributions to the literary arts in the Atlantic Provinces.

308.0 Irish-Canadian Literature

This course will examine writers of Irish and Irish-Canadian background who have made significant literary contributions in Canada. The first semester will deal with early emigrant poets like Donnchadh Ruadh MacConmara and Standish O'Grady, with Canadian folk poets in the Irish tradition such as Lawrence Doyle, Larry Gorman, and Johnny Burke, with figures like Thomas D'Arcy McGee, Mary Ann Sadlier and Cornelius O'Brien, and with the image of the Irish in Canadian literature. The second semester, focusing on the 20th century, will treat authors like Morley Callaghan, Leo Kennedy, Margaret Duley, Edward McCourt, Sheila Watson, Brian Moore, Harry Boyle, Dennis Patrick Sears, Alden Nowlan, Leo Simpson and George McWhirter.

310.0 Introduction to Old Irish

Prerequisite: one Celtic language.

An introduction to Classical Old Irish with grammar and readings.

325.1(.2) Intermediate Irish I

Prerequisite: IRS 201.1(.2)/202.1(.2).

A continuation of elementary Irish, with emphasis placed on students attaining a firm grasp of spoken Irish. In addition, students will continue their study of the history and development of the Irish language.

326.1(.2) Intermediate Irish II

Prerequisite: IRS 325.1(.2) or permission of instructor.

Building upon the skills acquired while studying elementary Irish and Intermediate Irish I, students will concentrate on refining their command of the Irish language. A variety of aural sources and written texts will be used.

334.0 Cross-listed as EGL 334.0 The Literature of Modern Ireland

350.1(.2) The Irish Musical Tradition

A survey of Irish folk music from pre-Christian times to the twentieth century. Areas under investigation shall include folk music as it relates to the wider background of Irish history; folk instruments; song-airs and singers; the structure and ornamentation of Irish folk music; and the role of Irish folk music in its nation's current musical scene. A knowledge of musical notation and terminology is not a prerequisite.

388.1(.2) Cross-listed as HIS 388.1(.2) [688.1(.2)] Early Celtic Britain

389.1(.2) Cross-listed as HIS 389.1(.2) [689.1(.2)] Medieval Celtic Britain

390.1(.2) Reading Course in Irish Studies: Selected Readings on Contemporary Ireland

The emphasis in this course will be on the political and social movements which led to the present Republic of Ireland. The political of repeal, the Home Rule movement, the growth of extreme republicanism and the transition to independence will be included.

395.0 Cross-listed as HIS 395.0 (695.0) Ireland, 1600-1985: From the Plantations to the "Troubles"

400.0 Irish Studies Seminar

This interdisciplinary course will allow students to consider a selection of topics relating to the Irish experience at home and abroad. Availing of the expertise of internal and external guest speakers, areas of study will include post-colonial Ireland; Ireland in contemporary European context; language and culture; Northern Ireland; contemporary literature in Irish and English; the Irish contribution to Canada; and sources for the study of the history of the Irish in Canada. Topics for discussion will be chosen by the instructor. Students will be required to research and write papers on selected topics and to present them to the seminar for discussion.

401.1(.2) Advanced Modern Irish I

Prerequisite: IRS 326.1(.2) or permission of instructor.

This course will deal with modern spoken and written Irish, with emphasis on acquiring a facility in spoken Irish.

402.1(.2) Advanced Modern Irish II

Prerequisite: IRS 401.1(.2).

This is an intensive course designed to develop further the student's ability to speak and write modern Irish.

407.1(.2) The Recovery of the Gaelic Past

Prerequisite: IRS 202.1(.2) and a minimum grade of C in EGL 202.1(.2).

This course will trace the process by which the Anglo-Irish discovered and translated the Gaelic literary heritage. It will examine, among other things, the publication of James MacPherson's fraudulent Ossian poems and the work of scholars and translators such as Charles O'Connor, Charlotte Brooke, John O'Donovan and Eugene Curry. The course will also look at English reaction to these developments as reflected in Matthew Arnold's "On the Study of Celtic Literature".

438.1(2) The Romantic Popularization of the Gaelic Past
Prerequisite: IRS 202.1(2) and a minimum grade of C in EGL 202.1(2).

This course will look at the process by which the new awareness of the Gaelic literary heritage fostered by the efforts of the scholars was exploited by the 19th century creative writers in Ireland. The focus of the course will be on the work and careers of writers such as James Hardiman, James Clarence Mangan and Samuel Ferguson, as well as on Charlotte Brooke, who begins the process, and Standish James O'Grady, whose work marks its end.

430.1(2) Irish Folklore

A comprehensive study of folklore in Ireland. All aspects of folklore will be examined, with special emphasis on the storytelling, song, and folk drama traditions.

441.1(2) Cross-listed as EGL 441.1(2) The Irish Short Story

442.1(2) Cross-listed as EGL 442.1(2) Irish Drama

443.1(2) Cross-listed as EGL 443.1(2) Irish Poetry

450.1(2) Modern Gaelic Literature in Translation

Prerequisite: permission of instructor.

This course will cover works in translation by prominent 20th century writers in Irish. Emphasis will be placed on the plays of Douglas Hyde, the prose writings of Pádraic Ó Conaire, Máirtín Ó Cadhain, the Blasket Island writers and modern Gaelic poetry.

451.1(2)-453.1(2) Special Topics In Irish Studies

Prerequisite: permission of Coordinator of the Irish Studies Program.

These courses will investigate in depth a specific topic or set of topics in Irish Studies. The topics will vary from year to year.

455.1(2) Gaelic Literature in Translation, 1600-1800

Prerequisite: permission of instructor.

Beginning with an overview of the state of and tensions within Gaelic Ireland, this course will examine the range and preoccupations of Gaelic literature during that period, 1600-1800. Emphasis will be placed on the *aisling*, the political poetry of the 17th century, and on satirical and comic writings, both prose and poetry, including Brian Merriman's *Cúirt an Mheon-Oíche* (The Midnight Court) and the anonymous *Pairlement Chloinne Tomáis*.

457.0 Cross-listed as POL 457.0 Politics and Government in Ireland



Coat of Arms of the D'Arcy McGee Chair of Irish Studies

Linguistics (LIN)

The minor in linguistics and the linguistics course are administered by the Department of Modern Languages and Classics.

Committee on Linguistics

R. Cospes, Coordinator	Sociology
K. Flikeid	French
W. Grennan	Philosophy
M. Harry	English
D. Piper	Education
M. Sargent	Education
V. Tobin	Classics
T.B.A.	Anthropology
T.B.A.	English

The Minor Program

The minor in linguistics offers students the opportunity to gain insight into the functioning of language as a system through an introduction to linguistic theory and training in the methods of linguistic analysis. It also serves as the gateway to the numerous practical applications of linguistics. Linguistics provides the groundwork for the teaching and learning of languages, as well as sign languages and computer languages. It forms the basis for the understanding of bilingualism, for language planning in multilingual countries, for developing tools for increasing literacy, and for enhancing the efficiency of translation services. Linguistics is also useful in the field of special education in the understanding and treatment of language disorders and reading problems.

To minor in linguistics, students must complete the following courses:

- a. The equivalent of three credits (3.0) from among the following:
- | | |
|---------------|---|
| ANT 390.0 | Linguistic Anthropology |
| EGL 311.1(.2) | Modern English Language |
| EGL 312.1(.2) | Modern English Language in Canada |
| EGL 402.0 | History of the English Language |
| FRE 320.1(.2) | French Phonetics |
| FRE 340.1(.2) | Linguistic Study of French |
| FRE 440.1(.2) | Canadian French: Sociolinguistic Perspectives |
| LIN 300.0 | Introduction to Linguistic Analysis |
| PHI 402.1(.2) | Philosophy of Language: Meaning |
| PHI 403.1(.2) | Philosophy of Language: Speech Acts |
| SOC 338.1(.2) | Language Change and Social Change |
| SOC 339.1(.2) | The Sociology of Language |
| WMS 318.0 | Language and Gender |

- b. The equivalent of one additional credit (1.0) selected with the advice of the Program Coordinator.

It is up to the individual departments to determine how often each of these courses will be offered. Students are advised to consult with the Coordinator as to the availability of courses when planning their minor. Students cannot count the same course for a major in any discipline and for a minor in linguistics.

300.0 Introduction to Linguistic Analysis

Natural languages are systematic and this course will examine how this fact makes human communication possible. A basic introduction to modern methods of linguistic analysis, the course will enable students to understand the structure of their own language and to compare it with other languages. By familiarizing them with the basic concepts of linguistics, the course will prepare students for more advanced or specialized courses in this area. Credit for this course will not be given to students who have previously taken a more comprehensive linguistics course, in particular ANT 390.0 (Linguistic Anthropology).



Management (MGT)

Chairperson, Professor

Professors

Associate Professors

Adjunct Professor

P. Fitzgerald
S. Carson, J. Chamard, H. Das,
S. Pendse, H. Schwind
J. Badawi, A. Mills,
L. Stevenson,
R. Summers, T. Wagar
R. Stuart-Kotze

The Department of Management offers two programs to business administration majors: Management as well as Human Resource Management and Industrial Relations.

In addition to meeting the general requirements for the Bachelor of Commerce degree, the following courses are required for each of these programs.

Human Resource Management and Industrial Relations Program Year 3

MGT 385.1(.2) Human Resource Management
MGT 386.1(.2) Industrial Relations
ECO 339.1(.2) Introduction to Labor Economics
ECO 340.1(.2) Human Resources Economics
Free elective, 200 level or above (0.5)

Year 4

MGT 481.1(.2) Organization Theory: Structure, Process, Analysis and Design
MGT 483.1(.2) Interpersonal Behavior I
Non-Commerce electives (2.0)
Free electives, 200 level or above (1.5)

Note: If ECO 339.1(.2) and/or ECO 340.1(.2) were used to satisfy the required economics electives in Year 2, the number of free electives increased to 1.0 or 1.5 as appropriate.

Management Program

Year 3

SC 316.1(.2) Management of Service Operations
SC 317.1(.2) Management of Manufacturing Operations
Accounting elective (0.5)
Marketing elective (1.0)
Commerce elective (0.5)

Year 4

MGT 385.1(.2) Human Resource Management
MGT 386.1(.2) Industrial Relations
MGT 481.1(.2) Organization Theory: Structure, Process, Analysis and Design
Finance elective (0.5)
Non-Commerce electives (2.0)
Free elective, 200 level or above (0.5)

381.1(.2) Introduction to Business Management

The purpose of this course is to introduce the student to the various aspects of business in the Canadian environment. Emphasis will be placed on the functional areas of marketing, production, finance, and the individual in the organization. In addition, the process of management will be outlined and evolving changes in management practices discussed. Current issues such as social responsibility, business ethics and the role of business in the community will be examined. Teaching methods will include lectures, group presentations and discussions of cases as well as other exercises.

Classes 3 hrs. a week. 1 semester.

381.1(.2) Work and Alienation

Prerequisite: completion of at least ten credits (10.0).

This is an interdisciplinary seminar which explores the issue of quality work life in both capitalist and communist societies. The issue will be examined from the perspectives of business administration, the humanities, and the social sciences.

Classes 3 hrs. a week. 1 semester.

384.1(.2) Organizational Behavior I

Prerequisite: MGT 281.1(.2).

This part focuses on the micro aspects of organizational behaviour. Topics covered include human needs and motivation, learning, perception, and attribution, as these relate to individuals and groups

in organizations. Teaching methodology includes lectures, discussions and case analysis.

Classes 3 hrs. a week. 1 semester.

384.1(.2) Organizational Behavior II

Prerequisite: MGT 383.1(.2).

This course is a continuation of MGT 383.1(.2). It focuses on macro aspects of organizational behaviour. Topics covered include group processes and their relationship to effectiveness, intergroup cooperation and conflict, organizational character, structure, environment and culture, leadership, communication, decision making and organizational change and development.

Classes 3 hrs. a week. 1 semester.

385.1(.2) Human Resource Management

Prerequisite: MGT 281.1(.2) and 384.1(.2).

A study of the conceptual and practical aspects of the human resource management function in organizations, with a special emphasis on business organizations. The course focuses on the major issues, procedures and problems involved in human resource planning, recruitment and selection, compensation, training and development, and maintenance of human resources.

Classes 3 hrs. a week. 1 semester.

386.1(.2) Industrial Relations

Prerequisite: MGT 281.1(.2) and 384.1(.2).

An introduction to the field of industrial relations. It focuses on the impact of collective bargaining in management/labor relations. Topics covered include the historical development, structure, and operation of labor unions, the process and contents of negotiations and the settlement of union/management disputes.

Classes 3 hrs. a week. 1 semester.

387.0 Introduction to Small Business and Entrepreneurship

Prerequisite: ACC 242.1(.2); MGT 384.1(.2); MKT 270.1(.2) or 370.1(.2); and MSC 225.1(.2) or 325.1(.2). This course is available only to students admitted to the Small Business/Entrepreneurship Co-operative Education major (SBE).

This course consists of an intensive ten-day workshop on topics important to entrepreneurs and small business. Coverage includes database management for small business, government-small business relations, and business plans. SBE students must enroll in the course during the spring following Year 2 and preceding their first work term. The course is designed to prepare students for their first work term. In most instances, this work term will be with Saint Mary's Business Development Centre or a government department or agency. Students will assist with the provision of consulting services to small businesses.

Mode of presentation: 10 full-day workshops over a two-week period.

388.1(.2) Business and Its Environment

Prerequisite: MGT 384.1(.2) or permission of instructor; MGT 281.1(.2); and ECO 201.1(.2)/202.1(.2).

Business and its economic and political environment, the social responsibilities of business.

Classes 3 hrs. a week. 1 semester.

389.1(.2) Structuring the Start-Up

Prerequisite: ACC 242.1(.2); MGT 384.1(.2); and MKT 270.1(.2) or 370.1(.2).

This course uses lectures, problems and cases to develop the students' ability to plan the human, material and economic aspects of the business start-up, whether it is de novo, a franchise, or a buy-out.

Classes and case study 3 hrs. a week. 1 semester.

391.1(.2) Women in Management

[WMS 391.1(.2)]

Prerequisite: completion of at least ten credits (10.0).

The course will examine issues faced by managers as women become a large proportion of the workforce: changing roles and status, sex roles differences, legal implications, corporate politics, and career planning.

Classes 3 hrs. a week. 1 semester.

481.1(.2) Organization Theory: Structure, Process, Analysis and Design

Prerequisite: MGT 384.1(.2).

In a systems context, the first phase of the course will expose the student to different concepts of formal organization. The second phase will involve the application of concepts using various design approaches and configurations.

Classes 3 hrs. a week. 1 semester.

483.1(.2) Interpersonal Behavior I

Prerequisite: MGT 384.1(.2).

This course studies and attempts to improve the kinds of interpersonal competence that can contribute to the effectiveness of an administrator. By focusing on the causes of misunderstandings between persons and reducing the causes of such misunderstandings, the course attempts to improve an individual's interpersonal skills as a member of an organization.

Classes 3 hrs. a week. 1 semester.

484.1(.2) Interpersonal Behavior II

Prerequisite: MGT 483.1(.2).

The course is designed to give further understanding of interpersonal behavior in an organizational context. It will give students the opportunity to practice interpersonal skills and gain further theoretical insights.

Classes 3 hrs. a week. 1 semester.

485.1(.2) Wage and Salary Administration

Prerequisite: MGT 385.1(.2).

This course is designed to integrate compensation systems with employment planning, career development, and organizational planning concepts.

Classes 3 hrs. a week. 1 semester.

486.1(.2) Personnel Staffing, Training and Development

Prerequisite: MGT 385.1(.2).

The course deals with the theoretical and practical issues of matching job requirements with personal characteristics and the assessment, counselling, training and development of human resources.

Classes 3 hrs. a week. 1 semester.

487.1(.2) Small Business Opportunities

Prerequisite: FIN 361.1(.2), and MKT 270.1(.2) or 370.1(.2).

The objective of the course is to stimulate informed interest in creating and managing a small business; the course includes the investigation of new business opportunities, capital requirements and sources, information systems, marketing and tax considerations.

Classes 3 hrs. a week. 1 semester.

488.1(.2) International Business Management

Prerequisite: MGT 384.1(.2).

An introduction to the nature of environment of international business management including the study of multinational corporations, intercultural differences and their effects on management style and policy and execution. The focus of discussion and presentation will be on management systems in North and South America, Europe, the Communist Bloc, Middle East, South-East Asia, China, and Japan.

Classes 3 hrs. a week. 1 semester.

489.1(.2) Strategic Management

Prerequisite: FIN 361.1(.2), MKT 270.1(.2) or 370.1(.2), MGT 384.1(.2), and one additional credit (1.0) at the 300 level from ACC, ECO, MGT, FIN, MKT, or MSC.

This is a "capstone" course that attempts to utilize all the business disciplines (management, marketing, finance, accounting, etc.) in an effort to identify, diagnose, and recommend appropriate action for real managerial problems. It is hoped that through this course, students will gain a better understanding of the complexity and interrelationship of modern managerial decision making. It is also hoped that this exposure will facilitate the students' ability to analyze complex problem situations.

Classes 3 hrs. a week. 1 semester.

490.1(.2) Seminar in Management

Prerequisite: MGT 384.1(.2) and permission of instructor.

The course deals with selected topics in the management area. The topics to be covered will vary depending on the interests of the students and instructors.

Seminar 3 hrs. a week. 1 semester.

491.1(.2) Entrepreneurship/Small Business Seminar

Prerequisite: MGT 389.1(.2) and COP 300.1(.2). This course is available only to students officially enrolled as SBE majors.

This seminar course is the capstone course for the Small Business and Entrepreneurship major. The course draws upon the three written work term reports which each student will have already submitted. These reports describe the nature of the work carried out, its usefulness to the host organization, the degree to which previous academic work prepared the student for the work term, and the areas where the students believe they had inadequate preparation.

Seminar 3 hrs. a week. 1 semester.

492.1(.2) Directed Study

Prerequisite: permission of Chairperson and instructor.

Intended to supplement or provide an alternative to the regular management courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Tutorial and independent study. 1 semester.

493.1(.2) Business-Government Relations in Canada

Prerequisite: MGT 384.1(.2) or permission of instructor.

This course deals with the various ways in which business and government in Canada influence each other: examines the causes and consequences of increased government involvement in business, describes and assesses the various responses of business managers to government involvement, and develops an understanding of the interrelationships between government and corporate actions.

Classes 3 hrs. a week. 1 semester.

494.1(.2) Entrepreneurship: Theories and Concepts

Prerequisite: FIN 360.1(.2).

Through lectures and seminars, this course covers the nature of entrepreneurship, theories of entrepreneurship, characteristics and behaviors of entrepreneurs, the entrepreneur as catalyst for economic activity, application of the concepts of entrepreneurship to public and non-profit enterprises both large and small, entrepreneurship in developing and developed economies.

Classes and seminar 3 hrs. a week. 1 semester.

495.1(.2) Small Business Performance Improvement

Prerequisite: MGT 384.1(.2), and MKT 270.1(.2) or 370.1(.2).

This course uses lectures and case analysis to develop students' ability to diagnose operating and other problems of small businesses and to develop workable solutions to the problems.

Classes 3 hrs. a week. 1 semester.

496.1(.2) Collective Bargaining

Prerequisite: MGT 386.1(.2).

An examination of the process of collective bargaining and its role in management-union relations. The course examines the nature of negotiation, its characteristics, the roles of power, persuasion, communication, social structure, negotiating strategies and tactics, and negotiators' personalities. Grievance handling as a form of negotiation is also examined.

Classes 3 hrs. a week. 1 semester.

497.1(.2) Issues In Industrial Relations

Prerequisite: MGT 386.1(.2).

An examination of some of the important issues related to industrial relations. Examples include employment statutes, human rights legislation, collective bargaining in the public sector, and the settlement of management-union disputes: Topics may be slightly varied depending on emerging issues and the interests of instructors and students.

Classes 3 hrs. a week. 1 semester.

689.1(2) Senior Management Perspectives

Prerequisite: Year 4 Commerce student and permission of instructor.

This course involves a series of guest speakers who have senior management experience from business, political, and non-profit organizations. Speakers present talks and topics related to interests. Each presentation will be followed by an open discussion.

Classes 3 hrs. a week. 1 semester.

The following courses are available only to students registered in the Master of Business Administration Program and with permission of the MBA Director to students registered in other Master's programs.

585.1(2) Organizational Behavior I

This part focuses on the micro aspects of organizational behaviour.

Topics covered include human needs and motivation, learning, perception, and attribution, as these relate to individuals and groups in organizations. Teaching methodology includes lectures, discussions, and case analysis.

585.1(2) Organizational Behavior II

Prerequisite: MGT 585.1(.2).

This course is a continuation of MGT 585.1(.2). It focuses on macro aspects of organizational behaviour. Topics covered include group processes and their relationship to effectiveness, intergroup cooperation and conflict, organizational character, structure, environment and culture, leadership, communication, decision making and organizational change and development.

681.1(2) International Business Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

The course focuses on the nature and environment of international business management, including the study of multinational corporations and joint ventures and their impact on the host country, inter-cultural differences and their effects on management style, policy, and execution.

682.1(2) Compensation Theory and Administration

Prerequisite: MGT 685.1(.2) or permission of MBA Director.

The focus of this course will be on the historical development of wage and salary administration, fundamentals of job and employee evaluation, motivation theories and how they relate to reward systems, job satisfaction, the relationship between reward and performance, basic compensation systems (including fringe benefits), managerial compensation, and wage and salary administrative controls.

683.1(2) Management of Interpersonal Relations

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course aims at improving the individual's ability to interact productively with others in two-person and small group relationships. It seeks to develop an individual's awareness of how a person's behavior affects and is affected by that of others.

684.1(2) Management of Organizational Design and Development

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

Study of the evolution of organizational design and the use of current techniques in organizational development. Emphasis is placed upon understanding how the evolution of organizational structures has affected our present ones and how current research can be utilized to improve and develop them in the future.

685.1(2) Strategic Human Resource Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

Investigation of the role of the personnel manager and the changes in the nature of responsibilities brought about by changes in legal and technological environments of organizations. The course deals mainly with human resource planning, selection, and compensation and the development of the human resources of the organization.

686.1(2) Labor-Management Relations

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

An examination of the role of the labor-management functions in the organization and the changing interplay between management, union and public policy, focusing on some of the main legal, behavioral and institutional issues in collective bargaining.

687.1(2) Small Business Opportunities

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

The objective of the course is to stimulate informed interest in creating and managing a small business. The course includes the investigation of small business opportunities, capital requirements and sources, information systems, marketing and tax considerations.

688.1(2) Social Issues In Business

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course will foster an awareness of the social impacts of business activity and decision making. Social costs and corporate social responsibility will be examined. Various social issues and the manner in which management might respond to societal expectations will be discussed.

689.1(2) Strategic Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course focuses attention on the role of the senior management function to develop and implement strategy in the context of the resources. It draws upon case material based on companies of differing sizes, technologies and degrees of diversification. By providing an insight into the problems and responsibilities faced by general management at the senior level, it seeks to provide an overall perspective for the remainder of the program.

690.1(2) Seminar in Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

The course deals with selected topics in the management area. The topics to be covered will vary depending on the interests of the students and instructors.

Seminar 3 hrs. a week. 1 semester.

692.1(2) Directed Study

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director, Departmental Chairperson, and instructor.

Intended to supplement or provide an alternative to the regular management courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

695.1(2) Small Business Performance Improvement

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director.

This course uses lectures and case analysis to develop students' abilities to diagnose operating and other problems of small business and to develop workable solutions to the problems.

698.1(2) Research Seminar In Management

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director, Departmental Chairperson, and instructor.

A study of research problems and methodologies in management, with each student preparing and defending a research proposal of his/her own based upon a critical review of current literature. This course is designed to aid students in the development of their project course.

699.1(2) Research Project in Management

Prerequisite: MGT 698.1(.2) or permission of MBA Director.

Each student is required to complete a project involving the practical application of the research concepts and techniques used in management, under the direct supervision of a faculty member. Interdisciplinary projects are acceptable.

Marketing (MKT)

Chairperson, Associate Professor	L. Rieber
Professor	T.S. Chan
Associate Professors	T. Musial, L. Van Esch
Assistant Professors	H. Ogden, J. Sagebien, C. Vaughan, R. Venkat
Adjunct Professor	A. Hope

The Department of Marketing offers a program for business administration majors which, in addition to the general requirements for a Bachelor of Commerce degree as outlined in Section 3 of this Calendar, requires students to take MKT 376.1(.2) (Consumer Behavior), MKT 378.1(.2) (Marketing Research), MKT 379.1(.2) (Marketing Management), MKT 479.1(.2) (Marketing Policy) and two additional electives (1.0 credit). For additional information, students should consult the Chairperson and/or faculty advisors. The Department administers the managerial communications courses [COM 293.1(.2), COM 394.1(.2), COM 475.1(.2), and COM 675.1(.2)] described earlier in this Calendar.

270.1(.2) Introduction to Marketing

Prerequisite: MGT 281.1(.2), and ECO 201.1(.2) and 202.1(.2).

Students are introduced to the basic marketing tools - segmentation, positioning, product, price, distribution, and promotion. Marketing research, buyer behavior, planning, marketing in a global setting, and the relationship between marketing and society are also introduced. Teaching methods include lecture, current readings, videos, class exercises and case analysis.

Classes 3 hrs. a week. 1 semester.

375.1(.2) International Marketing

Prerequisite: MKT 270.1(.2) or 370.1(.2).

Students explore the economic, cultural, political, and legal aspects of international marketing, together with international product policy, distribution, pricing, and promotion. International consumerism, research, and management issues are also addressed.

Classes 3 hrs. a week. 1 semester.

376.1(.2) Consumer Behavior

Prerequisite: MKT 270.1(.2) or 370.1(.2).

Students gain an understanding of the social, cultural, and psychological factors influencing consumer behavior and of the implications of consumer behavior to marketing strategies. Topics include consumers' needs, attitudes, learning, decision making, consumption patterns, cultures, and life styles.

Classes 3 hrs. a week. 1 semester.

378.1(.2) Marketing Research

Prerequisite: MSC 207.1(.2) and MKT 270.1(.2) or 370.1(.2).

Students are introduced to applied marketing research. Topics include preparation and evaluation of research proposals, evaluation of secondary data, design of research instruments, sampling, data collection, data analysis using statistical packages, and preparation and evaluation of research reports.

Classes 3 hrs. a week. 1 semester.

379.1(.2) Marketing Management

Prerequisite: MKT 376.1(.2) and 378.1(.2). [MKT 378.1(.2) may be taken concurrently.] COM 293.1(.2) is strongly recommended.

The objective of this course is to better equip students with the necessary analytic and communication skills to succeed as marketing managers. The focus is on practical applications. Course activities may include discussions, case analyses, simulation games, secondary research and field research projects. The course focuses on skill development and on integration of all decision areas in marketing.

Classes 3 hrs. a week. 1 semester.

380.1(.2) Marketing and the Organization

Prerequisite: MKT 270.1(.2) or 370.1(.2). COM 293.1(.2) is strongly recommended.

Note: This course is designed specifically for non-marketing majors. Marketing majors will not receive credit for this course as one of their required marketing electives. (To accommodate those who subsequently declare a major in marketing, this course can be credited as a free elective.)

This course is designed specifically for students who are not marketing majors but who want a more in-depth understanding of the role of marketing in the firm. In addition to providing a broad view of the marketing function, the course highlights the relationship between marketing and other functional areas. The course provides hands-on experience of marketing decisions and marketing plans, with a focus on practical applications. Course activities may include discussion case analyses, and research projects.

Classes 3 hrs. a week. 1 semester.

470.1(.2) Ethical Issues in Marketing Management

Prerequisite: MKT 270.1(.2) or 370.1(.2) and 4th year standing.

Students explore the moral and social consequences of marketing decisions on the major stakeholder groups: customers and clients, channel members, suppliers, governments, public-interest groups, and society. The obligations and responsibilities of marketing managers to these groups are also discussed.

Classes 3 hrs. a week. 1 semester.

471.1(.2) Marketing Communications I: Promotions Strategies

Prerequisite: MKT 379.1(.2).

Students study models of interpersonal and mass communication and the various promotional crafts: advertising, sales promotion, publicity, public relations, and personal selling, with a focus on integrating these into a coherent communications strategy. Marketing communications implications inherent in product pricing, design, packaging, and distribution are also examined.

Classes 3 hrs. a week. 1 semester.

472.1(.2) Marketing Communications II: Advertising

Prerequisite: MKT 372.1(.2) or 471.1(.2).

Students examine advertising as a component of marketing communications. Topics include advertising research, budgeting, account management, agency practices, and media selection, with a focus on planning, implementing, and evaluating advertising campaigns. The evolution of advertising, societal trends, and dynamics of the creative process in the firm are also addressed.

Classes 3 hrs. a week. 1 semester.

473.1(.2) Management of Marketing Channels

Prerequisite: MKT 379.1(.2).

Students examine the complex path from manufacturer or producer to end-user: the structure of marketing channels, the responsibility of each member, the factors affecting channel effectiveness, the methods for developing and managing effective channel relationships.

Classes 3 hrs. a week. 1 semester.

474.1(.2) Personal Selling and Sales Management

Prerequisite: MKT 471.1(.2).

Students study the theories and skills required for effective personal selling; for recruiting, training, compensating, and motivating sales personnel; and for managing the total selling effort.

Classes 3 hrs. a week. 1 semester.

475.1(.2) Export Management

Prerequisite: MKT 375.1(.2) and 379.1(.2).

Students undertake detailed study of the strategic decisions and research problems concerning export/import management: international marketing strategies, export strategies, the export process, preparation for exporting, distribution strategies, terms of trade, developing export quotes, and methods of evaluation of company readiness to export. Selective secondary data bases may be used.

Classes 3 hrs. a week. 1 semester.

476.1(.2) Current Topics in Marketing

Prerequisite: MKT 379.1(.2).

Students gain an appreciation of current issues in marketing, the changing nature of the marketplace, and the challenges these changes pose. The focus is on addressing practical problems in a complex environment. Course content varies from year to year.

Classes 3 hrs. a week. 1 semester.

477.1(.2) Marketing to Organizations

Prerequisite: MKT 473.1(.2).

Students develop an understanding of the industrial/organizational marketplace. The differences between marketing to consumers and marketing to organizations, the buying behavior of organizations, and the related marketing functions and strategies are discussed.

Classes 3 hrs. a week. 1 semester.

478.1(.2) Retail Management

Prerequisite: MKT 473.1(.2).

Students undertake a comprehensive study of the activities involved in retailing goods and services to consumers. Topics include the evolution of retailing, shopping behavior, retail marketing strategies, and emerging trends.

Classes 3 hrs. a week. 1 semester.

479.1(.2) Marketing Policy

Prerequisite: MKT 379.1(.2).

Students integrate the material learned in the prerequisite, upper-division marketing courses to analyse marketing opportunities, develop and evaluate marketing strategies, and develop and evaluate marketing plans. Teaching methods include case analyses, field projects, and/or computer simulation games.

Classes 3 hrs. a week. 1 semester.

480.1(.2) Special Topics In Marketing

Prerequisite: two half-credit courses (1.0 credits) in marketing beyond 370.1(.2) or 370.1(.2).

Students have the opportunity for in-depth study of selected topics in marketing. Topics selected for discussion are at the discretion of the instructor, with approval of the Department. Issues to be discussed may include such topics as marketing productivity, marketing auditing, marketing models, social issues in marketing. Topics will vary from year to year. The course may be repeated for credit when topics vary.

Tutorial and independent study. 1 semester.

482.1(.2) Directed Study

Prerequisite: permission of Chairperson and instructor.

Intended to supplement or provide an alternative to the regular marketing courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the students some measure of independence and initiative.

Tutorial and independent study. 1 semester.

The following courses are available only to students registered in the Master of Business Administration Program and with permission of the MBA Director to students registered in other Master's programs.

671.1(.2) Marketing Management: An Overview

Course providing managerial introduction to the fundamentals of marketing with primary focus on the planning, organizing, and controlling of product, price, distribution, promotion, and public policy. Strategies, in both domestic and international markets.

670.1(.2) Ethical and Social Analysis in Marketing Decisions

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course studies the application and integration of ethical and social analysis in marketing decisions. It also considers whether, when, and how to recognize and reconcile the interests of diverse groups of marketing stakeholders when making marketing decisions. The groups include customers and clients, channel members, suppliers, governments at all levels, as well as public-interest groups and society at large.

672.1(.2) Marketing Communications: Planning and Strategy

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

A study of communications theory as it applies to the role of interpersonal and mass communication media in marketing. Emphasis is placed on the formulation, coordination and evaluation of the effectiveness of advertising, personal selling, sales promotional, and public relations strategies.

673.1(.2) Marketing Distribution: Planning and Strategy

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

A systematic analysis of the decision-making factors underlying the development of effective distribution policies and strategies. The course focuses on the institutions and functions of the marketing channel with emphasis placed on distribution regulation, direct selling, retail, wholesale and physical distribution functions.

675.1(.2) Multinational Marketing

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

A comprehensive survey of the nature and environment of multinational marketing. This course focuses on the marketing management aspects of multinational business. Emphasis is placed on developing analytical decision-oriented abilities in the area of multinational pricing, product, policy, distribution, promotion, research and development and market segmentation.

676.1(.2) Consumer Behavior: Decision-Making Applications

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

An examination of the buying behavior of individuals as it is affected by psychological and sociological influences. Emphasis is placed on the understanding of how such behavioral-science concepts as social class, reference group, perception, attitude, motivation, personality and learning can contribute to the improvement of marketing decision-making.

677.1(.2) Industrial Marketing Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course studies the management of the marketing processes among industrial product producers, institutional, industrial and government consumers. Methods of procurement, such as buying centres and various buyer/seller relationships, are examined.

678.1(.2) Marketing Research

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

A study of the decision-making application of marketing research techniques and procedures. Emphasis is placed on research design, sampling, data collection, analysis and presentation. The course will require the use of one or more of the Micro Computer Labs (including the MacIntosh Lab) and the Main Frame (VAX Computer).

679.1(.2) Marketing Policy

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

A comprehensive, integrated study of marketing management. Primary focus is placed on the analysis and solution of complex marketing problem situations. The course also includes several seminar discussions on contemporary issues such as multinational marketing, consumerism, and marketing regulation.

690.1(.2) Seminar In Marketing

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

An in-depth study of selected topics. Selections for discussion are at the discretion of the instructor, with approval of the Department. Issues to be discussed may include such topics as marketing productivity, marketing auditing, marketing models, social issues in marketing. Topics will vary from year to year. The course may be repeated for credit when topics vary.

692.1(.2) Directed Study

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director, Departmental Chairperson, and instructor.

Intended to supplement or provide an alternative to the regular marketing courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

698.1(.2) Research Seminar in Marketing

Prerequisite: completion of all required 500-level MBA courses; MKT 678.1(.2) (may be taken concurrently); and permission of MBA Director, Departmental Chairperson, and instructor.

A study of research problems and methodologies in marketing, with each student preparing and defending a research proposal of his/her own based upon a critical review of current literature. This course is designed to aid students in the development of their project.

699.1(.2) Research Project in Marketing

Prerequisite: MKT 698.1(.2), completion of MKT 678.1(.2), or permission of MBA Director.

Each student is required to complete a project involving the practical application of the research concepts and techniques used in marketing, under the direct supervision of a faculty member. Interdisciplinary projects are acceptable.



Master of Business Administration (MBA)

Director Dr. Russel Summers

Program Requirements and Courses

The requirements for the Master of Business Administration are found in Section 3 of this Calendar. The courses for this program are found in the listings for the individual departments except for the one described in the following paragraph.

50.1(2) MBA Consulting Seminar

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director.

Student groups, under the supervision of the Director of the Saint Mary's Business Development Centre, will be responsible for interviewing small business clients, eliciting their information needs, developing a proposal for assisting the client, providing the information/services required, and preparing and presenting a consulting report. Two/three seminars on professional consulting will be given by senior consultants from the private sector. Groups will include students from different areas of concentration.

Seminar 3 hrs. a week. 1 semester.



Mathematics and Computing Science (MAT and CSC)

Chairperson, Associate Professor	A. Finbow
Professors	B. Hartnell, M.T. Kiang, R. Kruse
Associate Professors	W. Finden, L. Hughes, P. Muir, P. Scobey, Y.P. Singh
Assistant Professors	R. Dawson, K. MacLeod
Adjunct Professor	S. Lou

The Mathematics and Computing Science Department offers a broad range of courses, including introductory courses intended for students with little mathematical background; preparatory courses for students intending to enter fields requiring mathematics or computing science; and specialized courses for more advanced mathematics and computing science students.

Introductory Courses

CSC 101.1(.2)/102.1(.2) are introductions to computer programming designed for the student with little mathematical background and no previous experience with computers, who may have only casual interest in programming or needs only limited knowledge for application in other subjects. **Note:** The above courses are not allowed as credit towards a major or concentration in mathematics and computing science.

Preparatory Courses

MAT 010.1(.2)/011.1(.2) and 050.1(.2)/051.1(.2) are accepted as the equivalent of Nova Scotia Grade 12 Mathematics. MAT 010.1(.2)/011.1(.2) are intended primarily for students entering natural sciences or mathematics, and include emphasis on trigonometry as well as algebra. MAT 050.1(.2)/051.1(.2) are for commerce and social science students who do not have Nova Scotia Grade 12 Mathematics or equivalent.

MAT 210.1(.2)/211.1(.2) are the first courses in calculus, and MAT 310.1(.2)/311.1(.2) combined form the natural calculus sequel.

MAT 320.1(.2) provides an introduction to linear algebra, while further topics in linear algebra are covered in MAT 321.1(.2).

The CSC 226.1(.2)/227.1(.2) sequence is intended to be a first course for all students who intend to pursue further studies in computing science.

Specialized Courses

Students may obtain a degree which has a special emphasis in one of the areas indicated below by choosing the majority of their optional courses from those listed following the area of selection:

Special Emphasis in Pure Mathematics:

MAT 370.1(.2); 401.1(.2); 402.1(.2); 420.1(.2); 421.1(.2); 426.1(.2); 427.1(.2); 430.1(.2); 432.1(.2); 436.1(.2); 437.1(.2); 441.1(.2); and 442.1(.2).

Special Emphasis in Applied Mathematics:

MAT 308.1(.2); 309.1(.2); 315.1(.2); 316.1(.2); 401.1(.2); 402.1(.2); 405.1(.2); 406.1(.2); 408.1(.2); 409.1(.2); 414.0; 415.1(.2); 416.1(.2); 445.0; 456.1(.2); and 457.1(.2).

Special Emphasis in Computing Science:

All courses in computing science at the 300 level or above except CSC 387.1(.2) and 388.1(.2).

Requirements for Major in Mathematics and Computing Science

A major in mathematics and computing science is offered for students working towards the degrees of Bachelor of Arts and Bachelor of Science and for students of above average ability working towards the degrees of Bachelor of Arts (Honors) and Bachelor of Science (Honors).

Students who lack the stated high school courses prerequisite for credit courses in mathematics or computing science are advised to enroll in MAT 010.1(.2)/011.1(.2) in Year 1.

The Departmental requirements for a major in mathematics and computing science are:

1. MAT 210.1(.2)/211.1(.2)
2. CSC 226.1(.2)/227.1(.2)
3. MAT 310.1(.2)/311.1(.2)
4. MAT 320.1(.2)/321.1(.2)

5. A minimum of four (4.0) [two (2.0) in case of combined major] additional credits in mathematics and computing science from courses chosen by the student in consultation with the Department. These courses must be numbered 205 or above; must not include MAT 301.1(.2); and at least two (2.0) [one (1.0) in case of combined major] must be numbered 400 or above.

Requirements for Honors in Mathematics and Computing Science

The honors program is designed for mathematics and computing science majors of above average ability. Mathematics and computing science majors in Year 2 with an overall quality point average of at least 2.50, and with a quality point average of at least 3.00 in their mathematics and computing science courses, should consider enrolling in the honors program, and are advised to consult with the Department before making a final decision.

The Departmental requirements for honors in mathematics and computing science are:

1. MAT 210.1(.2)/211.1(.2)
2. CSC 226.1(.2)/227.1(.2)
3. MAT 310.1(.2)/311.1(.2)
4. MAT 320.1(.2)/321.1(.2)
5. A minimum of seven (7.0) [three (3.0) in case of combined honors] additional credits in mathematics and computing science courses chosen by the student in consultation with the Department. These courses must be numbered 205 or above; must not include MAT 301.1(.2); and at least four (4.0) [two (2.0) in case of combined honors] must be numbered 400 or above.

Note: Students must obtain formal Departmental approval of their program at the time of their declaration to enter the major or honors program, as well as for any subsequent changes.

Requirements for Major in Computing Science and Business Administration

Students interested in the above program should contact the Department of Mathematics and Computing Science or the Dean of Science. This program requires the following courses from this Department: MAT 210.1(.2), MAT 211.1(.2), CSC 226.1(.2), CSC 227.1(.2), MAT 305.1(.2), MAT 320.1(.2), CSC 327.1(.2), CSC 328.1(.2), CSC 341.1(.2), CSC 342.1(.2), CSC 461.1(.2) and CSC 462.1(.2). Additional information may be found in the Faculty of Science section in this Calendar.

Co-operative Education Program for Computing Science Students (COES) and Computing Science and Business Administration (COEB)

These programs are designed for those students who wish to gain work experience in computing science and computing science and business administration while attending university. The general requirements for these Co-operative Education programs are found in the Faculty of Science portion, Section 3 of this Calendar.

Credit for Duplicate Courses

No student who has received credit for an advanced mathematics or computing science course may later receive credit for a mathematics or computing science prerequisite to the course without permission of the Department. With renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level or under a different number.

Mathematics (MAT)

010.1(.2) Precalculus I

Elementary set theory and the real number system. Factorization. Inequalities, absolute values, and interval notation. Techniques of solving a variety of equations and inequalities in a single variable. The Cartesian plane and representation of ordered pairs of real numbers. Elements of analytic geometry. Relations, functions, and graphs, with emphasis on the polynomial, exponential, logarithmic functions, and polynomial and rational equations.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester

Note: This is a preparatory course. It does not carry a credit value; therefore it cannot be counted in the number of credits required for a degree, diploma or certificate.

211.1(.2) Precalculus II

Prerequisite: MAT 010.1(.2).

Trigonometry, inverse trigonometric functions. Complex numbers. Matrices, determinants, and system of equations. System of inequalities. Sequences and series. Permutations, combinations, and binomial theorem. Mathematical induction.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

Note: This is a preparatory course. It does not carry a credit value; therefore it cannot be counted in the number of credits required for a degree, diploma or certificate.

250.1(.2) Algebra for Commerce and the Social Sciences I

Elementary set theory and the real number system. Factorization.

Inequalities, absolute values, and interval notation. Techniques of solving a variety of equations and inequalities in a single variable.

The Cartesian plane and representation of ordered pairs of real numbers. Elements of analytic geometry. Relations, functions, and graphs, with emphasis on the polynomial, exponential, logarithmic functions, and polynomial and rational equations.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

Note: This is a preparatory course. It does not carry a credit value; therefore it cannot be counted in the number of credits required for a degree, diploma or certificate.

211.1(.2) Algebra for Commerce and the Social Sciences II

Prerequisite: MAT 010.1(.2) or MAT 050.1(.2) or equivalent.

Polynomials and rational functions. Matrices, determinants, and systems of equations. Systems of inequalities. Introduction to linear programming. Sequences and series. Permutations, combinations and the binomial theorem. Probability. Emphasis throughout on the skills needed to solve "word problems".

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

Note: This is a preparatory course. It does not carry a credit value; therefore it cannot be counted in the number of credits required for a degree, diploma or certificate.

210.1(.2) Pre-Calculus Review

Prerequisite: recommendation of the Department of Mathematics and Computing Science.

The following topics will be covered, in greater depth than in Grade 12 Mathematics courses: Manipulation of algebraic expressions.

Solving equations and inequalities. Functions and relations including

discussion of polynomials, rational functions, trigonometric functions,

inverse trigonometric functions, logarithms, and exponentials.

Analytic Geometry. Derivatives and integrals of simple functions.

Classes 3 hrs. a week. 1 semester.

Notes:

Students who register for MAT 210.1(.2) and subsequently fail at least one of the two pre-tests in this course will be required to withdraw from MAT 210.1(.2) and register for MAT 190.1(.2). This is the only way in which a student can register for this course.

This course does not count as one of the mathematics credits required for the degree of Bachelor of Science, or towards the requirements for a major or honors in mathematics and computing science. Students should be aware, therefore, that they may not be able to qualify for graduation by completing the minimum number of courses originally stipulated for their program.

217.1(.2) Survey of Statistics

Prerequisite: MAT 210.1(.2)/211.1(.2) or permission of instructor.

This course will provide an overview of several topics in probability and statistics that students intending further studies in computing science will find particularly useful.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

Note: No credit will be given for this course simultaneously with or subsequent to credit given for MAT 315.1(.2).

210.1(.2) Introductory Calculus I

Prerequisite: Nova Scotia Grade 12 MAT 441 or MAT 010.1(.2)/211.1(.2) or equivalent.

Topics will include: functions, limits, continuity, derivatives, the chain rule, implicit differentiation, the mean value theorem, curve sketching, max./min. problems, antiderivatives, area under a curve.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

Note: Students who fail at least one of the two pre-tests in this course will be required to withdraw from this course and will be eligible to re-register only after successful completion of MAT 190.1(.2).

211.1(.2) Introductory Calculus II

Prerequisite: MAT 210.1(.2).

Topics will include: area under a curve, the definite integral, the fundamental theorem of calculus, applications such as volume, arc length and work, inverse functions, exponential, logarithmic and inverse trig. functions, techniques of integration, l'Hôpital's rule, simple differential equations, approximate integration.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

301.1(.2) Topics for Engineering Students

Prerequisite: MAT 310.1(.2) (or concurrently).

Algebra of matrices. Rank and inverse matrices. Theory of linear systems. Cramer's rule and use of determinants. Algebra of complex numbers, polar forms and DeMoivre's theorem. First order differential equations. Linear differential equations with constant coefficients and methods of variation of parameters. Introduction to Laplace transforms.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course simultaneously with or subsequent to credit given for MAT 320.1(.2) or MAT 405.1(.2).

305.1(.2) Survey of Discrete Mathematics

Prerequisite: MAT 210.1(.2)/211.1(.2).

This course will provide an overview of several topics in discrete mathematics which are of particular interest to students intending further studies in computing science.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

Note: No credit will be given for this course simultaneously with or subsequent to MAT 205.1(.2).

308.1(.2) [CSC 308.1(.2)] Numerical Analysis I

Prerequisite: MAT 210.1(.2)/211.1(.2) and either CSC 101.1(.2), 226.1(.2), or equivalent programming experience.

A discussion of errors in numerical analysis. Theoretical and practical considerations of numerical procedures in non-linear equations in one variable, including polynomial equations, in systems of linear equations, and systems of non-linear equations. A brief discussion of vectors, matrices and norms.

Classes 3 hrs. a week. 1 semester.

309.1(.2) [CSC 309.1(.2)] Numerical Analysis II

Prerequisite: MAT 308.1(.2) or permission of instructor.

Theoretical and practical considerations of numerical procedures in function approximations including splines, interpolation and least squares and in numerical integration.

Classes 3 hrs. a week. 1 semester.

310.1(.2) Intermediate Calculus I

Prerequisite: MAT 210.1(.2)/211.1(.2).

Hyperbolic and inverse hyperbolic functions, the conic sections, parametric equations, the calculus of parametric equations, polar coordinates, area, tangent lines and arc lengths in polar coordinates, vectors in three dimensions, operations with vectors, dot and cross products, lines in space, planes, quadric surfaces, cylindrical and spherical coordinate systems, derivatives and integrals of vector valued functions, tangent and normal vectors, motion in space.

Indeterminate forms and l'Hôpital's rule, improper integrals, the limit of a sequence, monotone sequences, convergence tests for positive series, absolute and conditional convergence, power series, algebraic operations on power series, differentiation and integration of power series. Taylor and Maclaurin series. Taylor's theorem with remainder, approximation by Taylor's polynomials.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to MAT 300.0.

311.1(.2) Intermediate Calculus II

Prerequisite: MAT 310.1(.2).

Limits and continuity of functions of several variables, partial derivatives, the chain rule, directional derivatives and gradient vector, the total differential, tangent planes and normals to a surface, higher

order partial derivatives, extrema of functions of two variables. The double integrals, iterated integrals, double integrals in polar coordinates, applications of double integrals, the triple integral, triple integrals in cylindrical and spherical coordinates, applications of triple integrals vector fields, divergence and curl of vector fields, line integrals, path-independent line integrals.

Classes 3 hrs. plus recitation sessions 1 1/2 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to MAT 300.0.

315.1(.2) Introduction to Statistics I

Prerequisite: MAT 210.1(.2)/211.1(.2).

This course is designed to provide a mathematical basis for fundamental statistical concepts. It assumes a good knowledge of Calculus I and deals with the following topics: elementary set theory, set functions, probability, conditional probability, Bayes' theorem, translation of set functions to point functions by using random variables; binomial, Poisson, hypergeometric and other discrete distributions, mathematical expected values, moments, characteristic functions, Chebychev's inequality and distributions of functions of random variables; the t , x^2 , and F distributions.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to MAT 314.0.

316.1(.2) Introduction to Statistics II

Prerequisite: MAT 315.1(.2).

Continuous distributions, gamma and beta densities, normal distribution, sampling from a normal distribution and distribution functions of functions of sample values, estimation theory, maximum likelihood and least squares estimation, confidence intervals and prediction intervals, correlations and regression theory, statistical dependence and its analysis, hypothesis testing theory and tests of significance, curve fitting theory.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to MAT 314.0.

320.1(.2) Linear Algebra I

Prerequisite: MAT 210.1(.2)/211.1(.2).

This course presents the basic concepts and techniques of linear algebra, including Gaussian elimination, matrix algebra, vector spaces, orthogonality and inner products, together with various applications and computational methods.

Classes 3 hrs. plus recitation sessions 1 hr. a week. 1 semester.

321.1(.2) Linear Algebra II

Prerequisite: MAT 320.1(.2).

This course continues MAT 320.1(.2) with further concepts and theory of linear algebra. Topics include determinants, linear transformations and their matrix representation, change of basis and similarity, eigenvalues and eigenvectors, canonical forms, with applications to linear differential equations and quadratic forms.

Classes 3 hrs. plus recitation sessions 1 hr. a week. 1 semester.

370.1(.2) Problem-Solving Seminar

Prerequisite: permission of instructor.

Topics may include the nature of mathematical proofs and strategies for problem-solving and theorem-proving. The skills learned in this course will be applicable to many advanced mathematics courses.

Seminar 3 hrs. a week. 1 semester.

401.1(.2) Sequences, Series and Improper Integrals

Prerequisite: MAT 311.1(.2).

Infinite sequences and series, convergence tests, grouping and rearrangements, sequences and series of functions, pointwise and uniform convergence, power series, double sequences and series, differentiation under the integral sign, improper single and double integrals, functions defined by improper integrals, Fourier series and transforms.

Classes 3 hrs. a week. 1 semester.

402.1(.2) Vector Calculus

Prerequisite: MAT 311.1(.2) and 320.1(.2).

Curves and surfaces, directional derivatives, gradient, divergence, curl, differentiable functions from R_n to R_m , Jacobians, change of variables in multiple integrals, inverse of transformations and the implicit function theorem, line and surface integrals, the integral theorems of Green, Gauss and Stokes.

Classes 3 hrs. a week. 1 semester.

405.1(.2) Differential Equations I

Prerequisite: MAT 311.1(.2) or permission of instructor.

First order differential equations, linear differential equations with constant coefficients, Laplace transforms, linear differential equations with variable coefficients (series solutions), applications.

Classes 3 hrs. a week. 1 semester.

406.1(.2) Differential Equations II

Prerequisite: MAT 320.1(.2) and 405.1(.2) or permission of instructor.

Linear systems of differential equations and their applications, non-linear differential equations and stability, Sturm-Liouville problems and simple boundary value problems involving classical partial differential equations.

Classes 3 hrs. a week. 1 semester.

408.1(.2) [CSC 408.1(.2)] Advanced Numerical Analysis I

Prerequisite: MAT 309.1(.2) or permission of instructor.

Theoretical and practical considerations of numerical analysis in the eigenvalue-eigenvector problem and in the solutions of ordinary differential equations.

Classes 3 hrs. a week. 1 semester.

409.1(.2) [CSC 409.1(.2)] Advanced Numerical Analysis II

Prerequisite: MAT 408.1(.2).

Theoretical and practical considerations of numerical analysis in the solutions of ordinary and partial differential equations.

Classes 3 hrs. a week. 1 semester.

414.0 Statistical Simulation Theory

Prerequisite: MAT 316.1(.2) or equivalent.

Students are introduced to statistical modelling, simulation languages, validation of model analysis, input and output data analysis, random number generation, Monte Carlo studies, elementary queuing theory, optimal performance theory and optimal selection theory. Emphasis is on statistical simulation theory rather than on program writing.

Classes 3 hrs. a week. 2 semesters.

415.1(.2) Mathematical Statistics

Prerequisite: MAT 311.1(.2) and a course in the Pascal computer programming language.

This course studies mathematical foundations of statistics, including both parametric and non-parametric inferences. Emphasis is placed on the properties of random variables and their distributions. The estimation of parameters by using sample statistics and tests of related hypotheses are included. Applications to computer science are studied.

Classes 3 hrs. a week. 1 semester.

416.1(.2) Mathematical Probability

Prerequisite: MAT 415.1(.2).

The aim of the course is to introduce students to mathematical (non-measure-theoretic) foundations of probability and elements of stochastic processes. The topics include conditional probabilities, conditional distributions, characteristic functions, limit theorems, Markov chains and Markov processes, birth and death processes and elementary queuing theory.

Classes 3 hrs. a week. 1 semester.

420.1(.2) Abstract Algebra I

Prerequisite: MAT 321.1(.2) or permission of instructor.

The study of algebraic structures, such as groups, rings, fields, posets, graphs, or universal algebras. The major emphasis will be on derivation of theory, with inclusion of applications and examples.

Classes 3 hrs. a week. 1 semester.

Abstract Algebra II

Prerequisite: MAT 420.1(.2) or permission of instructor.

Further study of algebraic structures and their applications.

Classes 3 hrs. a week. 1 semester.

Introduction to Combinatorics

Prerequisite: MAT 311.1(.2) or 320.1(.2) or permission of instructor.

This course will introduce the student to various enumeration problems and will include such topics as permutations and combinations, recurrence relations and generating functions. Various applications and their applications will also be studied.

Classes 3 hrs. a week. 1 semester.

CSC 427.1(.2) Computational Methods in Graph

Prerequisite: MAT 311.1(.2) or 320.1(.2) or permission of instructor.

This course discusses various graph theoretic algorithms and their applications to different problems. Topics to be discussed will be the following: the connector problem, the shortest path problem, the Chinese Postman problem and Euler trails, matchings and applications to the personnel and optimal assignment problems, coloring problems (with reference to timetabling) and flows

Classes 3 hrs. a week. 1 semester.

Set Theory

Prerequisite: MAT 311.1(.2) or 320.1(.2).

Set theory will be developed using one of the widely accepted axiomatic systems. Alternate systems will be discussed. The topics will include: unions, cardinality, ordered sets, well ordering, transfinite numbers, and the axiom of choice.

Classes 3 hrs. a week. 1 semester.

Elementary Topology

Prerequisite: MAT 311.1(.2) and 321.1(.2); MAT 430.1(.2) is suggested.

This course will begin with a study of the topology of metric spaces. Topics include bounded and totally bounded sets, completeness theorems. Following this, abstract topological spaces are studied.

Classes 3 hrs. a week. 1 semester.

Theory of Functions of a Complex Variable I

Prerequisite: MAT 310.1(.2) and 311.1(.2).

Complex plane. Elementary transformations and mappings, conformal mappings, infinite series and uniform convergence. Cauchy's theorem and integration in the complex plane, residue theorem. Conformal mappings, entire and meromorphic functions. Some applications of conformal mapping theory.

Classes 3 hrs. a week. 1 semester.

No credit will be given for this course simultaneously with or subsequent to MAT 435.0.

Theory of Functions of a Complex Variable II

Prerequisite: MAT 436.1(.2).

Continuation of MAT 436.1(.2). Further study of analytic functions and conformal mapping theory.

Classes 3 hrs. a week. 1 semester.

No credit will be given for this course simultaneously with or subsequent to MAT 435.0.

Real Analysis I

Prerequisite: MAT 310.1(.2) and 311.1(.2).

Real numbers and relations, the real number field, the least upper bound property, countability, sequences and subsequences, compactness, metric spaces, continuous functions, connectedness and connectedness, series of functions, uniform convergence. Integration and differentiation of series of functions.

Classes 3 hrs. a week. 1 semester.

No credit will be given for this course simultaneously with or subsequent to MAT 440.0.

442.1(.2) Real Analysis II

Prerequisite: MAT 441.1(.2).

Further topics on metric spaces. Baire category theorem, Arzela-Accoli theorem, the Stone-Weierstrass theorem, Picard existence theorem for differential equations, Lebesgue measure, the Lebesgue integral.

Classes 3 hrs. a week. 1 semester.

Note: No credit will be given for this course simultaneously with or subsequent to MAT 440.0.

445.0 Introduction to Operations Research

Prerequisite: MAT 311.1(.2) and 320.1(.2).

The course will discuss mathematical models of real world problems together with a variety of recently developed mathematical programming techniques for their solution. Some theory will be presented but emphasis will be on the problem-solving approach and actual implementation of various problem-solving methods on the computer.

Classes 3 hrs. a week. 2 semesters.

456.1(.2) Introduction to Applied Mathematics I

Prerequisite: MAT 405.1(.2) or permission of instructor.

Review of differentiation of integrals depending on a parameter, uniform convergence of series, improper integrals depending on a parameter and Green's Theorem. Gamma and Beta Functions. Series solutions of Bessel, Legendre and hypergeometric equations and their elementary properties. Two point boundary value problems, Green's functions, Sturm-Liouville problems, Fourier and generalized Fourier series, Fourier integrals and integral transforms. Contour integrals of complex functions, residues.

Classes 3 hrs. a week. 1 semester.

457.1(.2) Introduction to Applied Mathematics II

Prerequisite: MAT 456.1(.2).

Linear partial differential equations, classification of second order equations and the canonical forms. Derivation of classical equations (wave, heat and Laplace). Separation of variables technique, integral transform method of solving partial differential equations.

Classes 3 hrs. a week. 1 semester.

490.1(.2) to 499.1(.2) Directed Study in Mathematics

Prerequisite: permission of instructor.

This course is intended to supplement or provide an alternative to the regular mathematics courses in order to meet the special needs and interests of students. The course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Computing Science (CSC)

101.1(.2) Fundamentals of Computing Science I

An introduction to the fundamentals of computing science, intended for students with little or no experience with computers or computer programming. Topics to be covered include terminology, problem solving, algorithm design, coding, testing, and documentation.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

102.1(.2) Fundamentals of Computing Science II

Prerequisite: CSC 101.1(.2) or permission of instructor.

Topics to be covered include: information storage and access, computer architecture, communications, and applications.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Note: No credit will be given for this course simultaneously with or subsequent to credit given for CSC 226.1(.2) or CSC 227.1(.2).

226.1(.2) Introduction to Computer Programming I

Prerequisite: Nova Scotia Grade 12 MAT 441 or MAT 010.1(.2)/011.1(.2) or equivalent.

This course teaches the fundamentals of algorithm development, stressing the technique of top-down design. Emphasis will be placed on writing programs that are highly modularized and that exhibit good programming style. Pascal or another suitable programming language will be presented; also included is a brief overview of the organization of a computer system.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

227.1.(2) Introduction to Computer Programming II

Prerequisite: CSC 226.1.(2).

This course stresses the continuing development of skills in algorithm design using the technique of top-down design. Emphasis will be placed on the writing of modular programs exhibiting good programming style. The fundamentals of algorithm analysis will be presented. These principles will be applied to writing larger computer programs in the language introduced in CSC 226.1.(2). Advanced aspects of this language will be treated, and a brief look at a second high-level programming language may be included. Other topics to be covered in the course are simple data structures, basic search and sorting techniques and recursion.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

308.1.(2) [MAT 308.1.(2)] Numerical Analysis I

See description under MAT 308.1.(2) in the listings of mathematics courses.

309.1.(2) [MAT 309.1.(2)] Numerical Analysis II

See description under MAT 309.1.(2) in the listings of mathematics courses.

327.1.(2) Computer Organization and Assembly Language Programming

Prerequisite: CSC 226.1.(2) and 227.1.(2).

This course considers basic concepts of computer organization and assembly language programming. Topics covered include hardware components, integrated systems, data representation, assembly language programming, data manipulation and structures, and I/O programming. Assignments and labs will require the use of available computer equipment.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Note: No credit will be given for this course simultaneously with or subsequent to credit given for CSC 326.0.

328.1.(2) System Architecture

Prerequisite: CSC 327.1.(2).

This course continues the coverage of CSC 327.1.(2) and considers basic computer structures, addressing methods, the processing unit, microprogrammed control, I/O organization, computer arithmetic and main memory.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Note: No credit will be given for this course simultaneously with or subsequent to credit given for CSC 326.0.

332.1.(2) Survey of Programming Languages

Prerequisite: CSC 226.1.(2) and 227.1.(2).

Lectures provide an introduction to some of the key concepts underlying all programming languages, emphasizing general principles rather than details of any particular language. Topics will include history and evolution of programming languages; programming language design goals; the place of programming languages in the programming environment; virtual vs. actual machines; data representation, type checking and data sharing; control structures; mechanisms that support modularity; storage management; syntax, semantics and language translation; automata as language recognizers; programming language paradigms. The laboratory component of the course will provide enough hands-on experience to give students a minimal working knowledge of at least three of the following languages: C, C++, Modula-2, Ada, LISP, SCHEME, Prolog, Smalltalk.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

341.1.(2) Data Structures and Software Engineering I

Prerequisite: CSC 227.1.(2).

This course emphasizes the importance of data structures in program design and performance. Fundamentals of data structures and algorithm analysis and comparison will be presented. The course will survey a number of common classes of data structures, along with a variety of information processing algorithms based on these structures. The concept of data abstraction will be emphasized throughout and some attention will also be given to related concepts in software engineering.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Note: No credit will be given for this course simultaneously with or subsequent to CSC 325.0 or CSC 345.0.

342.1.(2) Data Structures and Software Engineering II

Prerequisite: CSC 341.1.(2).

This course introduces additional data structures, and further develops the concepts and methods introduced in CSC 341.1.(2) with continued emphasis on algorithm analysis, abstraction, and software engineering.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Note: No credit will be given simultaneously with or subsequent to CSC 325.0 or CSC 345.0.

387.1.(2) Scientific Uses of Microcomputers I

Prerequisite: MAT 210.1.(2)/211.1.(2).

Course coverage includes an introduction to microcomputer architecture, acquisition of data and control of experiments, computerized communication and access to information and use of databases.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

388.1.(2) Scientific Uses of Microcomputers II

Prerequisite: MAT 210.1.(2)/211.1.(2).

Course coverage includes an introduction to microcomputer graphics, image analysis, computerized communication and access to information.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

408.1.(2) [MAT 408.1.(2)] Advanced Numerical Analysis I

See description under MAT 408.1.(2) in the listing of mathematics courses.

409.1.(2) [MAT 409.1.(2)] Advanced Numerical Analysis II

See description under MAT 409.1.(2) in the listing of mathematics courses.

421.1.(2) Data Communication

Prerequisite: CSC 328.1.(2).

This course presents a practical introduction to data communications. Topics covered include point-to-point communications, the telephone system, wide area networks, and local area networks. Subtopics include the UART, line analysis tools, synchronous protocols, bus networks, and ring networks.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

422.1.(2) Microcomputer Architecture and Programming

Prerequisite: CSC 431.1.(2).

Topics to be covered include: microprocessor technology and evolution, basic microcomputer organization, addressing modes and programming operations, programming and architecture of special microcomputer systems.

424.1.(2) Topics In Advanced Data Communications

Prerequisite: CSC 421.1.(2) or permission of instructor.

An in-depth examination of current and future trends in data communications. Topics to be covered include: multimedia, ISDN, the DARPA (DOD) Protocol suite (including IP), gateway design, and hypermedia.

426.1.(2) Distributed Systems

Prerequisite: CSC 421.1.(2) and 431.1.(2).

This course examines the design, structure, and use of systems having interacting processors. Topics include concurrency and synchronization, architectural support, messages vs. remote procedure calls vs. shared memory, structural alternatives, coupling, naming and binding, verification and validation issues, load balance and scheduling, appropriate applications.

427.1.(2) Cross-listed as MAT 427.1.(2) Computational Methods In Graph Theory**431.1.(2) An Introduction to Operating Systems I**

Prerequisite: CSC 327.1.(2) and 328.1.(2).

The fundamental principles of modern operating system design are presented. Some of the specific topics which will be covered are: processor management, real and virtual storage organization and management, resource allocation, deadlock handling, concurrent processes, interprocess communication and synchronization, and protection problems.

Note: No credit will be given for this course simultaneously with or subsequent to credit given for CSC 451.1.(2).

451.1(2) Introduction to Operating Systems II

Prerequisite: CSC 431.1(.2).

This course continues the survey of topics begun in CSC 431.1(.2).

Note: No credit will be given for this course simultaneously with or subsequent to credit given for CSC 451.1(.2).

461.1(2) Programming Language Translation

Prerequisite: CSC 431.1(.2) and 462.1(.2) or permission of instructor.

This course offers an in-depth study of the principles and design aspects of programming language translation. The major components of a compiler are discussed; lexical analysis, syntactic analysis, type checking, code generation, and optimization. Alternative parsing strategies are presented and compared with respect to space and time tradeoffs. Subtopics include ambiguity, representation, recovery, symbol table design, binding, compiler generation tools, syntax directed editors, linkers, loaders, incremental compiling, and interpreters.

Classes 3 hrs. and lab 3 hrs. a week.

471.1(2) Topics In Theoretical Computing Science I

Prerequisite: permission of instructor.

According to the interests of students and instructor, this course surveys topics from theoretical computing science such as algorithm analysis, automata, abstract machine theory, complexity theory, data and algorithm abstraction, and mathematical linguistics.

482.1(2) Topics In Theoretical Computing Science II

Prerequisite: permission of instructor.

This course continues the survey of topics begun in CSC 451.1(.2).

491.1(2) Database Systems

Prerequisite: CSC 341.1(.2) and 342.1(.2), or equivalent.

This course discusses database architecture, database management, relational algebra, relational calculus and other related topics which may include distributed databases. A major project will be included in this course.

492.1(2) File Structures

Prerequisite: CSC 341.1(.2) and 342.1(.2).

This course continues the study of the organization of information on external storage devices within a computer system, begun in CSC 341.1(.2) and CSC 342.1(.2). The course will include an overview of schemes for compact storage of information, a fairly extensive survey of single-key access methods, with particular attention given to associative methods, and a survey of multi-key access methods. Also included will be some discussion of advanced sort and merge algorithms for external memory. A brief overview of several file-structure systems may also be presented.

493.1(2) Numerical Software Engineering I

Prerequisite: CSC 308.1(.2), 309.1(.2), 341.1(.2) and 342.1(.2).

This course will study the software development process in the area of numerical software from a software engineering perspective. Emphasis will be placed on software development and implementation aspects of a variety of numerical algorithms. The course will also examine a substantial number of software packages including some which are currently available in some of the large commercial software libraries, as well as a number of published software packages which have yet to appear in libraries and even a few experimental codes which have not yet appeared in the literature. The main project in the course will be the development of a large software package by the class working as a programming team in a selected area of numerical algorithms. Other projects to be undertaken during the course include the modification of one or more existing mathematical software packages and the critical analysis of several existing software packages. A number of assignments related to the software packages considered will also be given.

464.1(2) Numerical Software Engineering II

Prerequisite: CSC 463.1(.2).

This course will continue the study of numerical software engineering begun in Numerical Software Engineering I.

471.1(2) Computer Graphics

Prerequisite: one credit (1.0) in MAT at the 300 level and one credit (1.0) in CSC at the 300 level; and permission of the instructor.

An overview of the principles and methodologies of computer graphics, including the representation, manipulation, and display of two- and three-dimensional objects. Subtopics include characteristics of display devices (e.g., raster, vector); representing primitive objects (lines, curves, and surfaces) and composite objects; two- and three-dimensional transformations (translation, rotation, scaling); hidden lines and surfaces; shading and coloring; interactive graphics and the user interface; animation techniques.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

474.1(2) Information Retrieval

Prerequisite: CSC 341.1(.2) and 342.1(.2) or permission of instructor.

This course is designed to complement CSC 461.1(.2) and considers manipulations on a bibliographic database. Topics to be covered include an introduction and basic definitions, inverted file structures, automatic indexing, prototype systems, retrieval and refinements and natural language processing.

482.1(2) Introduction to Artificial Intelligence

Prerequisite: CSC 341.1(.2) and 342.1(.2).

This course will include the following topics: (1) introduction to general concepts: natural intelligence, Turing's test, short history of A.I.; (2) problem solving: reduction and graphs, problem solvers, reasoning programs; (3) game playing: game trees and heuristic search (minimax, statistic evaluation, alpha-beta technique); (4) theorem proving: first order predicate calculus, theorem proving techniques (resolution, heuristic search strategies), solving problems with theorem provers; (5) natural language programming; (6) recognition: texture analysis, image enhancement and line detection, region perception and object perception; (7) introduction to logical languages and programming in Prolog.

491.1(2) to 499.1(2) Special Topics In Computing Science

Prerequisite: permission of instructor.

This course covers advanced topics in computing science chosen according to the interests of the students and instructor, and requires some measure of independence and initiative from the student.

Seminar 3 hrs. a week. 1 semester.

Modern Languages and Classics

Classics: Ancient History (CLA) - Classical Literature and Civilization (CLA) - Ancient Egyptian (EGP) - Greek (GRE) - Latin (LAT)

Modern Languages: Chinese (CHI) - English as a Second Language (ESL) - French (FRE) - German (GER) - Greek (GRE) - Spanish (SPA)

Chairperson Dr. G. Nahrebecky

Classics

Associate Professors G. Thomas, V. Tobin

French

Associate Professors P. Bernard, K. Flikeid
Assistant Professors J. Cauville, A. Murphy, G. Nahrebecky
Lecturer L. Bistodeau

German

Associate Professor M. Heukaeufer

Spanish

Professor A. Farrell

Department Policy - Modern Languages and Classics

The Department of Modern Languages and Classics offers major programs in Classics, French, German, and Spanish; language and literature courses in ancient Egyptian, Greek, and Latin; introductory language courses in Chinese and Modern Greek; and English as a Second Language.

The program in Classics is comprised of courses of instruction in languages, literature, history, culture and civilization. One of the language courses may be used to satisfy the 3-b requirement of the Faculty of Arts while the other courses in Classics may be used to satisfy the 3-c requirement.

Recognizing the significance of the cultural links between the classical civilizations of Greece and Rome and their later European descendants, the Department encourages its students to explore language as an evolving tool of communication and expression. Students majoring in Classics are strongly advised to study at least one of the classical languages; Latin is a valuable asset for students majoring in French, German or Spanish.

The student's eligibility to enroll in language and literature courses, and in specific sections of those courses, is determined by the Department in light of the student's ability level in the language concerned, previous course work completed at university or elsewhere, and overall size of the course or section of a course. In matters of placement, the decision of the Chairperson is final.

The Department of Modern Languages and Classics supports a policy of regular class attendance by students. Frequent, unexplained absences from class will result in a lowering of the final grade in a manner to be determined by each faculty member.

Students enrolling in any French course below the 300 level will be required to take a placement test (unless they have previously taken a French course at this University at the 200 level). Since this test is administered on the first day of classes, attendance at this first class is required.

a. Major Concentrations

Students intending to major in Classics, French, German, or Spanish are required to consult the Chairperson of the Department for advice about, and approval of, their academic programs. Where appropriate, supporting courses offered by other departments will be suggested. The following general requirements apply:

Major in Classics

A major in Classics consists of at least six credits (6.0), four (4.0) of which must be at the 300 level or above. At least one credit (1.0) is required in an ancient language, e.g., Egyptian, Greek, or Latin.

The following are recommended as core courses for the major:

CLA 201.1(.2)	Mythology of Greece and Rome I
CLA 202.1(.2)	Mythology of Greece and Rome II
CLA 203.1(.2)	Art in Greece and the Ancient Near East
CLA 204.1(.2)	Art in Rome and Christian Europe to the 14th Century

CLA 303.0	History of Greece
CLA 304.0	History of Rome
CLA 306.0	The Epic
CLA 310.0	History of Israel
CLA 316.0	History of Egypt
CLA 352.1(.2)	Women in Antiquity I
CLA 353.1(.2)	Women in Antiquity II

Major in French

A major in French normally consists of at least six credits (6.0) in French beyond FRE 200.0. Both FRE 300.0 and FRE 301.0 are compulsory. At least two (2.0) of the six credits must be made up of courses at the 400 level. One (1.0) of these 400-level credits must be chosen from among the following group of courses which centre on the literature of the French-speaking world: 405.1(.2), 412.1(.2), 416.1(.2), 417.1(.2), 418.1(.2), 419.0, 420.0, 422.1(.2), 425.0, 426.1(.2), 427.1(.2), 428.1(.2). One (1.0) of the six credits must be made up of courses containing a cultural component, to be chosen from the following list: 305.1(.2), 310.1(.2), 312.1(.2), 405.1(.2), 412.1(.2), 440.1(.2).

FRE 110.0 and 200.0 cannot be counted for the French major. Potential French majors with a strong background in French are urged to begin their French studies with courses beyond FRE 250.0. Students interested in preparing themselves for teaching French are strongly advised to seek advice on course selection and career opportunities from the Chairperson early in their studies at Saint Mary's.

Minor in French

A minor in French consists of at least four credits (4.0) in French beyond FRE 110, with at least two (2.0) of these being at the 300 level or higher.

Major in German

A major in German Studies consists of at least six credits (6.0). Four compulsory credits (4.0) in German language/literature will include GER 100.0, 200.0, and two credits (2.0) at the 300 or 400 level. The remaining two credits (2.0) may be taken in German language/literature, or may be from courses given in English and taken from other departments. Those courses will stress German history, culture, roots, and civilization, and can only be taken after consultation with the Co-ordinator of German Studies or the Chairperson of Modern Languages and Classics.

Major in Spanish

A major in this language is worked out in consultation with the professor concerned, and is predicated upon the Faculty of Arts regulations governing major programs.

b. Minor in Linguistics

The minor in linguistics is described in Section 5 of this Academic Calendar under the heading of "Linguistics".

c. French Language Courses

In an effort to provide the students with the language course which best suits their needs, a placement test is administered during the first day of class in FRE 110.0, 200.0, and 250.0. Students who have already taken a university course in French elsewhere are asked to consult the Department before registering for a course in French.

d. French for Francophones and High School Immersion Graduates

Francophones and students who have completed high school immersion or enriched French programs normally begin their French studies at the 250 level or higher. Such students do not normally take FRE 200.0, 230.1(.2), nor 231.1(.2). Students are strongly advised to consult with a member of the Department before choosing their French courses.

e. Language Skill Courses in French

The following courses are especially recommended to students interested in acquiring conversational ability or special skills in French:

FRE 230.1(.2)	FRE 330.0
FRE 231.1(.2)	FRE 400.1(.2)
FRE 301.0	FRE 421.0
FRE 321.1(.2)	FRE 430.0
FRE 325.1(.2)	

Students are advised that each professor has the right to institute a component as part of the normal course requirements. These may involve practice sessions in the Language Learning Centre and/or time spent in conversation with a designated language monitor.

Certificate of Proficiency In French for Non-Majors

The Department of Modern Languages and Classics offers a program in French designed to build the students' ability to communicate effectively in the language, both orally and in writing, and directed to the attainment of the Certificate of Proficiency in French. The certificate is granted by the University in recognition that the student has attained a level of comprehension and fluency sufficient to understand most conversation between native speakers and to sustain conversation on most topics.

The program consists of four credits (4.0) specifically chosen for their direct applicability to this goal. These four credits are normally chosen from of the following: FRE 200.0, 230.1(.2), 231.1(.2), 250.0, 301.0, 320.1(.2)/321.1(.2), 325.1(.2), and FRE 400.1(.2). Students qualified to enter the program at a higher level will take FRE 250.0, 301.0, two of 320.1(.2), 321.1(.2), 325.1(.2), 400.1(.2), and either FRE 421.0 or 430.0. Students who anticipate making use of their skills in French in the commercial world would be well advised to substitute FRE 330.0 for 320.1(.2) and 321.1(.2) in the sequences detailed above. In special cases, however, exceptions may be made regarding both the number and types of courses taken. After successfully completing the program of study approved by the Department, the student will take a comprehensive oral and written examination.

The Certificate of Proficiency in French will be awarded by the University through the office of the Registrar. The student's transcript will bear a separate entry showing that the certificate has been awarded and recording the grade attained in the comprehensive examination.

Year Abroad at the Université Catholique d'Angers, France

The Department offers a year-abroad program of study at the Université Catholique d'Angers, France. It consists of a month-long intensive French language session in September, followed by two semesters of course work (mid-October through mid-June) in language and in subjects chosen from among a variety of courses including phonetics, linguistics, French civilization, history and literature, music and art history, etc. Normally students who successfully complete the September pre-university session and the two semesters of course work receive five credits (5.0) at Saint Mary's. Lodging is arranged with local families in Angers, meals are available at the university restaurant, and a full program of cultural and recreational activities is offered.

A one month program is offered in July, designed specifically for intensive work in spoken and written French and benefiting from the presence of French language monitors selected by the Université d'Angers.

The approval of the Department of Modern Languages and Classics, the Dean of Arts, and of the Dean of the Faculty (if other than Arts) is required for students to participate in this study-abroad program. To be eligible to participate in this program, and in other study programs at other French universities or at other francophone universities, students must have completed at least one credit (1.0) in French at Saint Mary's University and must have obtained a minimum grade of B in French at Saint Mary's at the 200 level or above. With the approval of the Department of Modern Languages and Classics, a study year abroad at another French university or a French university in Quebec may be substituted for the one in Angers.

Classics - Ancient History (CLA)

303.0 History of Greece

[HIS 350.0]

Prerequisite: a credit (1.0) in Classics or History or the permission of instructor.

Intensive study of ancient Greek history from the time of the early Aegean and Mycenaean societies to the end of the classical polis about 400 B.C. Students will learn something of Greek religion, social structure, and government, and in particular study the development of Athenian democracy. This course may also be used as a History credit.

Classes 3 hrs. a week. 2 semesters.

304.0 History of Rome

[HIS 351.0]

Prerequisite: a credit (1.0) in Classics or History or the permission of instructor.

Ancient Roman and Italian history from the early Palaeolithic and Neolithic finds known to archaeology, a study of the Etruscans, the Republic in glory and decline, and the advent of the Principate under Augustus. Subject matter and emphasis can vary in different years. This course may also be used as a History credit.

Classes 3 hrs. a week. 2 semesters.

310.0 History of Israel

[REL 309.0]

A study of the history of the ancient Hebrew kingdoms of Israel and Judah from the earliest settlements in Palestine to the fall of Jerusalem in 70 A.D.

Classes 3 hrs. a week. 2 semesters.

316.0 History of Egypt

A detailed study of the history and culture of ancient Egypt from the pre-dynastic period (c. 3300 B.C.E.) until the Greek conquest (332 B.C.E.). As well as political history, the course will consider mythology and religion, art and architecture, and selections from the literature of Egypt (e.g., Pyramid Texts, Coffin Texts, Egyptian epic and fiction).

Classes 3 hrs. a week. 2 semesters.

405.0 Advanced Reading and Tutorial

Prerequisite: permission of instructor.

A course based on directed readings and research. The contents of the course will be determined by the specific interests of the professor and the students involved. Students will have the opportunity to pursue in depth their individual interests in the field of Classics, and will meet regularly with a member of the Department to discuss their research. To register in this course students must demonstrate a satisfactory background in Classics or the Ancient World of the Near East and an ability to do independent research.

Classes: tutorial 3 hrs. a week. 2 semesters.

Classics - Classical Literature and Civilization (CLA)

200.0 The Classical Civilizations of Greece and Rome

A general introduction to the civilizations of ancient Greece and Rome with particular regard to history, political organization and cultural contribution to modern western society.

Classes 3 hrs. a week. 2 semesters.

201.1(.2) The Mythology of Greece and Rome I

The course deals with the nature of mythology and the subject matter of the principal myths of Greece and Rome, e.g., the Medea and Hippolytus by Euripides, the different tales of the underworld, the Greek and Roman gods. Where possible the students are also encouraged to look at later versions and adaptations of the ancient tales.

Classes 3 hrs. a week. 1 semester.

202.1(.2) The Mythology of Greece and Rome II

The course deals with the nature of mythology and the subject matter of some of the principal myths of Greece and Rome, e.g., the Oresteia by Aeschylus, the labors of Hercules, the wanderings of Aeneas.

Classes 3 hrs. a week. 1 semester.

203.1(.2) Art In Greece and the Ancient Near East

Aided by slides, films and reproductions of artistic pieces in addition to lectures and readings, the class will examine the origins, developments and particular interests of artists in Mesopotamia, Egypt and Greece.

Classes 3 hrs. a week. 1 semester.

204.1(.2) Art in Rome and Christian Europe to the 14th Century

This course takes up the development of ancient art after the Hellenistic Greek world. It will show by readings, slides, films, tapes and lectures how earlier themes and techniques in art were carried on and modified by the Romans and by the Christians whose art grew out of a pagan background.

Classes 3 hrs. a week. 1 semester.

306.0 The Epic**[EGL 306.0]**

Prerequisite: EGL 201.1(.2)/202.1(.2) or equivalent.

A study of various major national epics with a view towards understanding the works themselves, the cultures they represent, and the characteristics of the oral and written epic as art forms. Central to the course will be a detailed analysis of the Iliad, Odyssey, and Aeneid.

Classes 3 hrs. a week. 2 semesters.

352.1(.2) Women in Antiquity I**[REL 306.1(.2)/406.1(.2); WMS 352.1(.2)]**

Medea's passion, Aspasia's intellect, and the famous Cleopatra's tragic brilliance are all present in the women of antiquity. This course will examine the ways in which women of different social classes lived in the ancient Near East, including Ancient Israel, and Greece. The development of women's roles and relationships between men and women will be considered in the context of history, religion, myth, and literature.

Classes 3 hrs. a week. 1 semester.

353.1(.2) Women in Antiquity II**[REL 307.1(.2)/407.1(.2); WMS 353.1(.2)]**

Roman women were doctors, artists, large landowners, beloved wives and mothers. Some, like Dido and Lesbia, were subject matter for famous poets. In this course we will also examine how the development of Christianity in the Roman Empire both softened some abuses against women and aggravated others. From archaeology, literature, and religion, this course examines women's lives from Hellenistic times until the end of the Roman Empire.

Classes 3 hrs. a week. 1 semester.

401.1(.2) Directed Study I

A half credit course open to students who wish to pursue a special topic or topics in Classics through tutorials, independent study, and research. The availability of this course depends upon the agreement of a particular faculty member who is prepared to direct the tutorial and study program.

Classes 3 hrs. a week. 1 semester.

402.1(.2) Directed Study II

A half credit course open to students who wish to pursue a special topic or topics in Classics through tutorials, independent study, and research. The availability of this course depends upon the agreement of a particular faculty member who is prepared to direct the tutorial and study program.

Classes 3 hrs. a week. 1 semester.

Classics - Ancient Egyptian (EGP)**300.0 Classical Egyptian**

Prerequisite: none, but students are advised to consult with instructor before registering.

An intensive study of the language and grammar of Middle Egyptian, the classical language of ancient Egypt. Students will examine the grammatical possibilities of the language and receive intensive exercise in the decipherment and interpretation of the hieroglyphs.

Classes 3 hrs. a week. 2 semesters.

400.0 Readings in Middle Egyptian

Prerequisite: EGP 300.0.

Students will read, analyze and interpret selected texts from Middle Egyptian, e.g., Coffin Texts, Sinuhe, Book of the Dead, The Dispute Between a Man and his Ba, The Eloquent Peasant, etc.

Classes 3 hrs. a week. 2 semesters.

450.0 Readings in Old and Late Egyptian

Prerequisite: EGP 300.0.

Selected readings from the Pyramid Texts, the Amarna Texts, Horus and Seth, the Mes Inscription, the Deir el-Medineh ostraca, etc. Students will be introduced to the analytic forms of the Late Egyptian language as opposed to the synthetic forms of Middle Egyptian.

Classes 3 hrs. a week. 2 semesters.

Classics - Greek (GRE)**100.0 Introductory Ancient Greek**

An introductory course covering the major grammatical points of ancient Greek language. This course will be followed in succeeding years by more advanced courses in the reading and interpretation of classical authors.

Classes 3 hrs. a week. 2 semesters.

200.0 Second Year Ancient Greek

Prerequisite: GRE 100.0.

An application of the major grammatical points of the ancient Greek language through the reading of selected works of classical authors.

- i. Homer, Iliad
- ii. Xenophon, *Anabasis*
- iii. the dramatists
- iv. lyric poetry

Classes 3 hrs. a week. 2 semesters.

Classics - Latin (LAT)**100.0 Introduction to Latin**

A course in the essentials of Latin grammar for students beginning their study of this ancient language.

Text: Goldman, Nyenhuis, *Latin Via Ovid*.

Classes 3 hrs. a week. 2 semesters.

201.0 Intermediate Latin

Prerequisite: LAT 100.0 or equivalent.

This course aims to enhance the development of good technique in Latin-English translation and of rendering English into idiomatic Classical Latin. A variety of Latin authors and the continued study of Latin grammar will be utilized to achieve those objectives.

Classes 3 hrs. a week. 2 semesters.

Modern Languages - Chinese (CHI)**100.0 Introductory Modern Chinese**

An introduction to spoken and written modern Chinese (Mandarin). Conversational drill and comprehension exercises in classroom and laboratory provide practice in pronunciation and in the use of the basic patterns of speech. The Chinese ideographs are introduced and studied in combinations. Reading progresses from prepared materials to selections from contemporary writings, including the newspaper.

Classes 3 hrs. a week. 2 semesters.

200.0 Intermediate Modern Chinese

Prerequisite: CHI 100.0.

A continuation of CHI 100.0, this course is intended to develop proficiency in both oral and written Chinese with emphasis on comprehension. Textbooks, newspapers, magazines, and modern short stories will be extensively used, especially in the second semester, to help students acquire the ability to read and write. The abbreviated forms used in the People's Republic of China will also be introduced.

Classes 3 hrs. a week. 2 semesters.

Modern Languages - English as a Second Language (ESL)**100.0 English as a Second Language**

Prerequisite: native language other than English; recommendation of the English, Modern Languages and Classics, or other academic department; and permission of instructor.

The aim of the course is to help students to function effectively in university by increasing competence in reading and listening comprehension, fluency in speech, and accuracy in writing.

Classes 3 hrs. a week. 2 semesters.

Modern Languages - French (FRE)

FRE 100.0 Beginners' French

Prerequisite: Placement Test.

An introductory course for students who have had some formal training in French but not enough to justify their admission to FRE 200.0 as demonstrated on the placement test. Students who have completed Nova Scotia Grade 12 French or equivalent are not eligible for enrollment in this course.

FRE 200.0 Basic University French

Prerequisite: Placement Test.

A student enrolling in this course must have completed Nova Scotia Grade 12 French or already possess an equivalent knowledge of French, as demonstrated on the placement test. A general language course for non-majors interested in the continued development of their listening, speaking, reading and writing skills. Emphasis is placed on the student's ability to function orally in realistic contexts. Taught in French. This course cannot be counted for the French major and is not intended for immersion students.

FRE 230.1(2) French Communication Skills

Prerequisite: FRE 200.0 or equivalent.

This course builds on language skills acquired in other French courses to enhance the student's ability to communicate in French. Thorough advanced preparation will be required for each class, where oral activities predominate. Attendance in class is mandatory.

FRE 231.1(2) French Reading and Writing Skills

Prerequisite: FRE 200.0 or equivalent.

This course focuses on improving students' ability to understand and produce written texts. It is designed to complement more general French courses by concentrating on the enhancement of reading and writing abilities. The course helps students acquire greater ease of comprehension and expression through study of contemporary texts and application of specific writing techniques.

FRE 250.0 Intermediate French

Prerequisite: Placement Test or FRE 200.0 (or equivalent) with a minimum grade of C.

Oral and written French, including composition, translation, conversation and a review of grammar based on contemporary texts. This is an intensive course designed for students with a strong background in French. Normal requirement and starting point for all majors. Taught in French.

FRE 300.0 Introduction to Literature Written in French

Prerequisite: FRE 250.0 or permission of Department.

A selection of modern writing in French drawn from poetry, fables, short stories, drama and novels. The purpose of this course is to teach students to read literary language, to grasp structural relationships, and to interact with various works in terms of theme, character portrayal and rhetorical devices.

Note: This course is required of all students who intend to major or take honors in French.

FRE 401.0 Advanced French Language Skills

Prerequisite: FRE 250.0 with a minimum grade of C or permission of Department.

A practical course intended to continue the development of the student's linguistic abilities. This course focuses on writing skills, yet also includes the aural/oral practice necessary for advanced studies in French. Contemporary texts as well as audio-visual material will provide a basis for discussion and writing. Grammatical points will be reviewed as required. This course is compulsory for all students who intend to major in French.

FRE 405.1(2) Acadian Language and Culture

Prerequisite: FRE 250.0 or equivalent.

This course relates the current linguistic situation in the Acadian communities of the Atlantic Provinces to the social and historical situation which has influenced the development of the French language in these areas. The course has a strong practical component intended to help students identify the specific structures of this variety of French. Authentic recordings of Acadian speakers are analyzed, as well as films and literary texts. A general objective of the course is to enhance students' knowledge of the socio-cultural background of the Acadian speech communities.

FRE 310.1(2) Introduction to French Culture

Prerequisite: FRE 250.0 or permission of Department.

This course will focus on contemporary culture in France, with some historical references. It will explore some of the concerns of France in the 1990's: a growing interest in ecological issues, technological advances, the challenges of a diverse immigrant population, the development of the European community and the attempt to reconcile French tradition with cultural changes. Films from the French Embassy, TV broadcasts, slides and newspaper articles will enable students to develop perspectives on French culture.

FRE 312.1(2) Introduction to Quebec Culture

Prerequisite: FRE 250.0 or permission of instructor.

The main purpose of the course is to inform students about present-day life in Quebec as well as to enable students to develop perspectives on their own culture. Varied approaches will be used to explore a wide array of topics, including bilingualism, politics, education, arts, etc. This course is of particular interest to current or prospective teachers of French.

FRE 320.1(2) French Phonetics

Prerequisite: FRE 250.0 or equivalent, or permission of instructor.

In this course students will gain insight into the sound structure of French, both at the articulatory and the systemic levels. This will provide the basis for analytical and practical approaches to questions of pronunciation. A variety of options will ensure that classwork and assignments take advantage of students' individual backgrounds (e.g., French as a first or second language) and particular interests (e.g., teaching applications). The primary focus on Standard French will be complemented by comparisons among different regional varieties of French.

FRE 321.1(2) Writing In French

Prerequisite: FRE 250.0 or equivalent, or permission of instructor.

A course for students beyond the intermediate level who wish to improve their command of French by means of vocabulary enrichment, reading of non-literary texts and a variety of writing activities. Knowledge of intermediate level grammar is assumed.

FRE 325.1(2) French Speech Strategies: Managing Conversations

Prerequisite: FRE 250.0 or permission of instructor.

Classroom practice in developing strategies for use in conversations. By means of application activities, students learn how to initiate, maintain and close conversations, how to communicate and respond to needs, feelings, opinions, plans, etc. Recommended for students interested in perfecting their communicative skills in spoken French.

FRE 330.0 French for Business

Prerequisite: permission of instructor.

A course designed to familiarize students with the business vocabulary and commercial correspondence of French-speaking countries.

FRE 340.1(2) Linguistic Study of French

Prerequisite: FRE 250.0 or permission of Department.

The principles of linguistic analysis are introduced through a study of the French language from a broad range of approaches. While becoming aware of the specific structure of French, the student will gain general insight into how a language functions. The course also examines the relationship between language patterns and social and geographic diversity, as illustrated by the French Canadian linguistic situation. The course will be given in English, but presupposes competence in French.

FRE 400.1(2) French Speech Strategies: Perfecting Oral Skills

Prerequisite: FRE 325.1(2) or permission of instructor.

An examination of speech acts and discursive features of language use found in real situations. Students practice how to structure and manage conversations at an advanced level in order to attain a higher level of oral proficiency. Students will participate in demonstrations, simulations, role-playing and problem-solving activities. Of particular interest to current or prospective teachers of French.

405.1(2) Acadian Literature and Society

Prerequisite: French credit at 300 level or permission of instructor.

This course traces the evolution of Acadian society through a study of literary genres including novels, short stories, theatre, poetry, chronicles, folklore, oral tradition, as well as artistic modes of expression other than literature. A variety of texts and visual material is used to present the socio-historical background and the contemporary cultural situation.

412.1(2) Literature and Society of French Canada

Prerequisite: FRE 300.0 or FRE 301.0 or permission of Department.

This course provides an overview of French Canadian literature through a study of its major works. Various aspects of the cultural background are presented, including language, religion, music, film and art. The course also examines the historical evolution leading to the particular situation of present-day Quebec and that of French-speaking minority groups throughout Canada, through the analysis of literary works related to these themes.

416.1(2) The Eighteenth Century

Prerequisite: FRE 300.0 or permission of Department.

A study of some of the major works of the eighteenth century with special emphasis given to *Les liaisons dangereuses* and the epistolary novel.

417.1(2) The Romantic Period

Prerequisite: FRE 300.0 or permission of Department.

A study of some of the major works of the first half of the nineteenth century and the Romantic Movement which gave them form.

418.1(2) Realism and Naturalism

Prerequisite: FRE 300.0 or permission of Department.

A study of some of the major novels of the second half of the nineteenth century and the literary movements which gave them form.

419.0 French Canadian Novel

Prerequisite: FRE 300.0 or permission of instructor.

A study of the origins until 1930. Comparative development of the Canadian novel and popular tradition. The course is also designed to acquaint students with the ideas of writers from 1930 to the present day.

420.0 20th Century Novel

Prerequisite: FRE 300.0 or permission of instructor.

In the 20th century the novel has become the most prominent, if not the most significant, literary genre. What is the secret of its appeal for the modern sensitivity? The novels to be studied in this course, reflecting as they do both the depth and the diversity of the form, may provide an answer to this question.

421.0 Comparison of English and French Stylistics

Prerequisite: FRE 301.0 or permission of instructor.

A course designed to increase the student's knowledge of French beyond vocabulary and grammar and to enable them to grasp the similarities and divergences between French and English. The course involves practice in French/English translation and emphasizes the theoretical aspects of French and English stylistics which aid in establishing a method for translation.

422.1(2) Introduction to Literary Analysis

Prerequisite: FRE 300.0 or permission of Department.

The purpose of this course is to provide an understanding of contemporary francophone literature and thought through exposure to theatre, short stories and film scripts. The course will serve as an introduction to formal critical analysis of literature. We will examine how a text functions at various levels: intellectual, formal and symbolic, and how the coherence of a literary work reveals itself. In addition, this course will provide opportunities for the student to learn how to organize a literature assignment (oral and written) and how to ground his/her thinking in the text.

425.0 Women's Literature In France and French Canada [WMS 425.0]

Prerequisite: FRE 300.0 (for French majors); or EGL 202.1(2) or another literature course; and proficiency in French (for WMS majors and other students).

This course will provide an introduction to French and French Canadian women's writing, emphasizing the plurality of women's voices. The first two weeks of each semester will be devoted to a historical overview of women's writing in both countries. The remainder of the course will be spent on the analysis of individual texts, using techniques based on feminine perspectives. The course will be open to students working towards a major either in Women's Studies or in French. Therefore, oral presentations and essays may be completed in English or in French respectively. Nevertheless, the texts will be read in their original French version and class discussions and lectures will be in French.

426.1(2) The French Short Story

Prerequisite: FRE 300.0 or permission of Department.

A study of a wide variety of modern short stories (19th and 20th centuries) illustrating the richness of this genre in francophone literature.

427.1(2) Classical and Romantic French Theatre

Prerequisite: FRE 300.0 or permission of Department.

The course is designed to examine what is specific to theatre as a literary genre. It focuses on some of the major works of French dramatic literature of the 17th to 19th centuries.

428.1(2) Modern French Theatre

Prerequisite: FRE 300.0 or permission of Department.

The course is designed to examine what is specific to theatre as a literary genre. It focuses on some of the major works of modern French dramatic literature (Theatre of the Absurd, Existentialist theatre, "Nouveau théâtre").

430.0 Advanced French Grammar

Prerequisite: a 300-level French course [FRE 321.1(2) is recommended] or permission of instructor.

A systematic study of French grammar, involving both theory and application. Strongly recommended for majors.

431.1(2) Directed Study I

A half credit course open to students who wish to study a special author or subject through tutorials, independent study and research. The availability of this course depends upon the agreement of a particular faculty member who is prepared to direct the readings and study.

432.1(2) Directed Study II

A half credit course open to students who wish to study a special author or subject through tutorials, independent study and research. The availability of this course depends upon the agreement of a particular faculty member who is prepared to direct the readings and study.

440.1(2) Canadian French: Sociolinguistic Perspectives

Prerequisite: a 300-level French course or permission of instructor.

This course will examine the major features which distinguish Canadian French from European French, as well as the characteristics of the different varieties of French spoken in Canada, in particular Acadian and Quebecois French. The relationship between language and society will be studied both as a source of linguistic change and as a determining factor in current speech patterns. Authentic recorded speech samples will be used to illustrate the various aspects studied and will also serve to familiarize students with the French language as spoken in Canada.

Modern Languages - German (GER)**100.0 Introduction to the German Language**

An introductory language course for those beginning the study of German. Basic linguistic structures will be studied with particular emphasis on the oral aspects.

Classes 3 hrs. a week. 2 semesters.

200.0 Intermediate German

Prerequisite: GER 100.0 (or equivalent) with a minimum grade of C.

A continuation of elementary German, with emphasis on grammar, conversation, and reading.

Classes 3 hrs. a week. 2 semesters.

202.0 Advanced Oral and Written German

Prerequisite: GER 200.0 or permission of instructor.

This course offers an opportunity to build upon and refine students' ability to comprehend and to communicate effectively in German.

Audiocassettes, tapes and videos will be used to supplement course materials.

Classes 3 hrs. a week. 2 semesters.

203.0 Introduction to Business German

Prerequisite: GER 100.0 (or equivalent) with a minimum grade of B, or permission of instructor.

The main objective of this course is to familiarize students with business vocabulary and commercial correspondence in German. Parallel to the study and writing of business letters, there will be a thorough review of grammatical structures in the German language.

Classes 3 hrs. a week. 2 semesters.

204.0 German Culture and Civilization

Readings, lectures, slide showings and films on the culture and civilization of Germany. The course will move from the early tribal periods to the present, looking at political and social history, literature and art, philosophy and science. This course is offered in English.

Classes 3 hrs. a week. 2 semesters.

Note: This course fulfills the Arts humanities 3-c requirement but does not fulfill the 3-b requirement.

205.0 Introduction to German Literature

Prerequisite: GER 200.0 or permission of instructor.

A chronological survey of the major periods of German literature from the Baroque Age to modern times. The course will provide the student with an introduction into literary analysis and interpretation and at the same time expand the student's knowledge of the German language.

Classes 3 hrs. a week. 2 semesters.

210.0 Modern German Literature

Prerequisite: GER 200.0 or permission of instructor.

A study of trends in modern German literature. Poetry, plays and short stories will be read and analyzed.

Classes 3 hrs. a week. 2 semesters.

200.0 German Contemporary Literature

Prerequisite: GER 200.0 or permission of instructor.

A study of significant prose and dramatic works in German literature from 1945 to the present.

Classes 3 hrs. a week. 2 semesters.

205.0 Independent Study

Prerequisite: permission of instructor.

This course is intended for advanced students who have a good working knowledge of German, a special interest in German literature and who want to study a particular author through directed, independent readings.

Classes 2 hrs. a week. 2 semesters.

Modern Languages - Greek (GRE)**201.0 Modern Greek**

An introductory level class for those who have little or no background in the language. The class will aim at enabling the student to understand and communicate in Modern Greek at a basic level.

Attention will be given to both oral and written work. Films, tapes, audiocassettes, magazines and newspapers will be used to enhance student interest.

Classes 3 hrs. a week. 2 semesters.

201.0 Modern Greek

Prerequisite: GRE 101.0.

An intermediate level class for those students who have passed the introductory level class in Modern Greek or its equivalent, or who have a basic knowledge of the language. The purpose of the class will be to develop a sound working knowledge of Modern Greek, both oral and written, including mastery of the basic vocabulary and the major grammatical elements.

Classes 3 hrs. a week. 2 semesters.

Modern Languages - Spanish (Spa)**100.0 Introduction to the Spanish Language**

Designed to offer a firm initial competency in speaking and writing Spanish. This course requires regular attendance and a willingness to participate.

Classes 3 hrs. a week. 2 semesters.

200.0 Intermediate Spanish

Prerequisite: SPA 100.0 (or equivalent) with a minimum grade of C.

A continuation of elementary Spanish, with emphasis on comprehension, conversation, reading and writing.

Classes 3 hrs. a week. 2 semesters.

202.1(2) Aspects of Latin American Culture and Civilization

This course provides an introduction to selected aspects of cultures and civilizations of this complex and fascinating world area. It focuses on the legacy of native, pre-Columbian civilizations and their Spanish conquerors, particularly as expressed in the literatures of Argentina, Mexico, and Peru. Readings, class discussions, and student participation in English. This course does not satisfy the Arts requirement 3-b, but does satisfy the Arts requirement 3-c as a humanities credit.

Classes 3 hrs. a week. 1 semester.

203.1(2) Spanish Culture and Civilization

This course examines selected aspects of Spanish civilization and cultural activity from the earliest times to the present. Drawing its materials mainly from Spanish literature, but considering as well achievements in the visual arts, music, and architecture, the course offers a survey of the unique contributions of Spain to Western culture. Readings, class discussions, and student participation in English. This course does not satisfy the Arts requirement 3-b but does satisfy Arts requirement 3-c as a humanities credit.

Classes 3 hrs. a week. 1 semester.

302.0 Advanced Oral and Written Spanish

Prerequisite: a sound knowledge of Spanish grammar.

This course offers an opportunity to build upon and refine the student's ability to comprehend and to communicate effectively in Spanish. A variety of aural sources and written texts will be used.

Classes 3 hrs. a week. 2 semesters.

305.0 Culture and Society of the Dominican Republic

Prerequisite: SPA 200.0 or equivalent (with a minimum grade of B) and permission of the instructor.

This course, of six weeks' duration, takes place in Santo Domingo, the Dominican Republic (approximate dates: last week of April until the end of May). Lectures, readings, and field work will be conducted in Spanish. Under the supervision of Saint Mary's University faculty and under the direction of Dominican professors as well as professionals working in the respective areas of interest, students will examine four broad aspects of culture and society in the Dominican Republic: Dominican society, politics, and economics; women in development; art and popular culture; and the popular church movement. A final research paper will be submitted at the conclusion of the course.

Classes: 50 hours. Seminar: 15 hours.

402.0 Contemporary Latin-American Literature

Prerequisite: a 300-level course in Spanish or equivalent. Open to major students only.

The course examines a selection of the principal literary movements and works in 19th and 20th century Spanish American literature. In the first term, attention is directed to Romanticism, gauchesque literature, and the cultivation of the short story and of the novel. The beginnings of Modernism and the poetic activity of the 20th century are explored during the second term.

Classes 3 hrs. a week. 2 semesters.

403.1(2) Pre-Cervantine Spanish Prose

Prerequisite: a full credit at the 300 level in Spanish or equivalent.

A study of representative Spanish prose works from the Middle Ages through 1600, as a background for the major literary innovations of Miguel de Cervantes.

Classes 3 hrs. a week. 1 semester.

404.1(2) Cervantes

Prerequisite: a full credit at the 300 level in Spanish or equivalent.

A study of a selection of the prose works of Miguel de Cervantes, with emphasis on *Don Quixote*, the first modern novel.

Classes 3 hrs. a week. 1 semester.

405.0 20th Century Spanish Literature

Prerequisite: permission of instructor.

An examination of the poetry, drama, and novel of 20th century Spain.

Texts: Readings from Lorca, Laforet, Cela, Arrabal and other writers.

Classes 3 hrs. a week. 2 semesters.

423.1(2) Independent Study

Prerequisite: permission of instructor.

A tutorial course open to students who wish to study a particular topic, subject, or author largely through independent reading and research. Registration in the course is made after consultation with the appropriate member of the Department, who will organize the program of studies.

Tutorial 3 hrs. a week. 1 semester.

424.1(2) Independent Study

Prerequisite: permission of instructor.

A tutorial course open to students who wish to study a particular topic, subject, or author largely through independent reading and research. Registration in the course is made after consultation with the appropriate member of the Department, who will organize the program of studies.

Tutorial 3 hrs. a week. 1 semester.



Studying in the Patrick Power Library

Philosophy (PHI)

Chairperson, Associate Professor	S. Wein
Associate Professors	W. Grennan, P. March
Assistant Professors	R. Ansell, J. Blair, S. Crooks, J. Graham
Lecturer	S. Wake

General Information

The Department of Philosophy offers a full range of undergraduate courses. Students may obtain an honors degree in philosophy, be a philosophy major, or do a minor in philosophy. Students should consult with the undergraduate advisor to arrange a selection of courses that fits their individual interests and meets Department requirements. In addition, the Department offers a pre-law option and a master's degree.

PHI 200.0 is the only philosophy course that satisfies regulation 3-b of the Faculty of Arts degree requirements.

1. Major in Philosophy

Students majoring in philosophy must complete six credits (6.0), at least four (4.0) of which must be above the 200 level. At least three credits (3.0) must be taken from the following list of core courses.

PHI 302.0	Ethics
PHI 310.0	Political Philosophy
PHI 314.0	Intermediate Logic
PHI 315.0	Mathematical Logic
PHI 326.0	Philosophy of Mind
PHI 345.1(.2)	Greek Philosophy: The Presocratics and Plato
PHI 346.1(.2)	Greek Philosophy: Aristotle and The Hellenists
PHI 402.1(.2)	Philosophy of Language: Meaning
PHI 403.1(.2)	Philosophy of Language: Speech Acts
PHI 406.0	Theory of Knowledge
PHI 440.1(.2)	Medieval Philosophy: Early Period to 12th Century
PHI 441.1(.2)	Medieval Philosophy: 13th, 14th Centuries
PHI 442.1(.2)	Early Modern Philosophy: The Rationalists
PHI 443.1(.2)	Early Modern Philosophy: The Empiricists
PHI 444.1(.2)	Later Modern Philosophy: Kant
PHI 450.1(.2)	Phenomenology
PHI 455.1(.2)	Existentialism: The 19th Century: Kierkegaard, Nietzsche
PHI 456.1(.2)	Existentialism: The 20th Century: Jaspers, Marcel, Camus, Sartre
PHI 465.0	Analytic Philosophy
PHI 471.1(.2)	Meta-ethics
PHI 472.1(.2)	Foundations of Ethics
PHI 479.0	Senior Seminar

2. Major In Philosophy: Pre-Law

Students majoring in philosophy and taking the pre-law option must complete all the requirements for a major in philosophy. It is recommended that they take the following courses:

PHI 200.0	Basic Logic
PHI 302.0	Ethics
PHI 332.1(.2)	Ethics and the Law
PHI 333.1(.2)	Philosophy of Law

3. Double Major

A student may major in philosophy and another subject. The student normally completes six credits (6.0) in philosophy and should consult the undergraduate advisor.

4. Honors Program

To qualify for the degree of Bachelor of Arts (Honors) in philosophy, a student must: (a) meet the general requirements of the Faculty of Arts set out in regulations 11-17, Section 3 of this Calendar; (b) meet the requirements for a major in philosophy; and (c) obtain four additional credits (4.0) in philosophy above the 300 level. The chairperson or the undergraduate advisor will assist the student in selecting these courses.

5. Minor In Philosophy

A minor in philosophy requires a minimum of four credits (4.0), at least two (2.0) of which must be above the 200 level.

6. Master's Program

The general requirements for a Master of Arts in philosophy are set out in the Faculty of Arts section of this Calendar. 600-level courses are open only to Master of Arts (Philosophy) students. Permission of instructor is necessary.

200.0 Basic Logic

The aim of the course is practical rather than theoretical: to enable the student, in practice, to do such things as define terms accurately, construct sound arguments, identify fallacious thinking, and adopt a scientific approach to problem solving. No special knowledge or abilities are presumed, and students should take the course as early as possible in their program.

201.0 Introduction to Philosophy

Philosophy covers a wide variety of issues and questions with which any educated person will wish to be acquainted such as: law, morality, justice; the problems of freedom; the nature of what is mental, what physical; death; the nature of knowledge, scepticism, rationality; theism, agnosticism, atheism. Philosophy does, and ought to, play an important role in the education of doctors, lawyers, scientists, statesmen, educators, writers, theologians, and others. The introductory course is designed to acquaint students with the field of philosophy by covering some of these problems, and to encourage them to develop their own critical intelligence through a study of major past and present contributions toward the solution of these problems.

244.1(.2) Human Freedom

The traditional problems of free will and political freedom. Different concepts and conceptions of freedom and liberation. An examination of some contemporary thought on freedom and liberation.

245.1(.2) Philosophies of Life

An examination of the major philosophies of life and an assessment of the reasons for and against their adoption. Consideration will be given to various forms of collectivism and individualism and to various views of what is ultimately worth striving for.

302.0 Ethics

An introduction to moral philosophy designed to lead the student to examine the foundations of their moral positions. To this end historical and contemporary answers by philosophers to questions such as the following will be examined: What ought I to do morally, and why ultimately ought I to do it? Are ethical positions simply relative: (a) to a person? (b) to a society? What is the relation between science and morality? Why be moral?

310.0 (610.0) Political Philosophy

Prerequisite: a philosophy or political science course.

An examination of some philosophical concepts basic to any philosophy of politics: society and social obligations, the common good, the individual and individual rights, law, freedom, tolerance and repression, popular consent, sovereignty. The course will investigate the relationship, if any, between ethics and philosophy of politics and, with reference to contemporary experience of differing state systems, raise the question of whether the expression "making a better world" has any meaning.

314.0 Intermediate Logic

Prerequisite: PHI 200.0 or 315.0 (which may be taken concurrently).

This course continues and develops the work of PHI 200.0. It offers students of all faculties opportunities for further growth in reasoning skills, in part through supervised practice in the logical appraisal of extracts from a variety of important writings. Some branches of logic are developed beyond the level of PHI 200.0. The complete predicate calculus (with identity) is applied to arguments of ordinary English. Inductive logic, and practically significant areas of logical theory, are developed considerably. Scientific method and the general methods of some other disciplines are analyzed in some depth.

315.0 Mathematical Logic

Prerequisite: one of PHI 200.0, a course in mathematics, or a course in computing science.

A systematic introduction for students of philosophy, mathematics or computing science to the most fundamental topics of mathematical logic, proceeding from the propositional calculus, through the predicate calculus, and Boolean algebra, to set theory (as a

'foundation' for mathematics). Emphasis is placed on the development of facility and rigour in the use of natural deductive and axiomatic methods, and in the use of semantic tableaux and trees. There is an examination of such metalogical topics as consistency, completeness and decidability. Some attention is also paid to practical applications, such as circuit simplification, computerization of problem solving and formalization of theory.

317.1(2) Philosophy of Economics

This course examines the basic assumptions on which economic theory rests, asks whether economics is a science, and explores the extent to which economic analysis can be used in other areas (for example, in medicine and the law). No knowledge of economics is presupposed or required.

325.1(2) Ethical Issues in International Development

This course will examine the ethical problems raised by international development. Among the issues addressed will be the extent to which those who are well off have a duty to aid those in need, the limits to which it is morally acceptable to place conditions on the receipt of aid, the rights of those receiving development assistance to preserve and protect their culture, and what justification can be found for the various schools of thought on how to organize development programs.

326.0 (626.0) Philosophy of Mind

Prerequisite: an introductory course in philosophy and/or psychology would be helpful.

This course will examine what, if anything, is unique about a human. Are they just an animal or a little lower than the angels? The most complex machine of all or an integrated unity of mind and body? A self-organizing system developed through a long process of evolution or a unique product of special creation? Various philosophical and psychological theories will be discussed, but special emphasis will be given to those of S. Freud and B. F. Skinner.

331.1(2) Business Ethics

An examination of the extent to which business objectives can, must, or do conflict with moral objectives, and of the extent to which business organizations can be brought into harmony with moral objectives. This will involve treatment of the relevant aspects of ethical theory.

332.1(2) Ethics and the Law

Prerequisite: a minimum of 5.0 credits.

Fidelity to the law, the distinction between moral and legal rights/duties, theories of punishment, and the legislation of morality.

333.1(2) Philosophy of Law

Prerequisite: a minimum of 5.0 credits.

Natural Law Theory, legal positivism, separability thesis, relation between law and morality, legal interpretation, the economic analysis of the law, and legal skepticism.

345.1(2) [645.1(2)] Greek Philosophy: The Presocratics and Plato

A brief examination of the origins of ancient Greek philosophy in the works of speculative cosmologists and the subsequent shift in interest from nature to humanity as initiated by Socrates and developed in the works of Plato. Most of the course will consist of reading Plato's major dialogues, including his Republic.

346.1(2) [646.1(2)] Greek Philoaphy: Aristotle and The Hellenists

A brief examination of Aristotle's views on drama, psychology, knowledge, ethics, and politics, to be followed by a brief study of Stoicism, Epicureanism, and Plotinus.

348.1(2) [648.1(2)] Aesthetics: The Work of Art, The Artist

This course considers works of art as the product of creative artists, and problems about the interpretation and criticism of works of arts.

349.1(2) [649.1(2)] Aesthetics: The Aesthetic Experience

This course analyzes the concept of aesthetic experience and its relations to the appreciation and understanding of works of art.

360.0 Philosophy In Literature

This course involves making a critical assessment of philosophical positions found in selected contemporary stories, plays and novels. It should interest students who are intrigued by the philosophical significance of some literature.

Texts: Readings in selected literature reflecting contemporary issues, e.g., Dostoevsky, Camus, Orwell, Hemingway, Iris Murdoch, Margaret Atwood, Virginia Woolf, Margaret Laurence.

370.0 (670.0) Medical Ethics

Advancing medical technology has created moral issues that cannot be settled simply on the basis of medical facts. Both the medical profession and society as a whole must make value decisions between life and death issues such as abortion, euthanasia, and treatment of the insane can be settled. This course is intended to help the student reach reasoned conclusions on these issues through clarification and appraisal of arguments.

380.0 (680.0) Philosophical Issues in Feminism [WMS 380.0]

Prerequisite: at least 1.0 philosophy credit.

The course will examine the nature of the contemporary movement in feminism, and examine and evaluate arguments for and against the movement within the major traditions of political and social philosophy. To this end it will examine such basic concepts as justice, equality, freedom, rights, power and happiness, and discuss some of the practical questions raised by feminists.

402.1(2) [602.1(2)] Philoaphy of Language: Meaning

Prerequisite: 1.0 philosophy credit at the 300 level.

A critical examination of the major theories of linguistic meaning, including the sentence-meaning/speaker's meaning distinction, and related topics such as the relation of language to thought.

403.1(2) [603.1(2)] Philosophy of Language: Speech Acts

Prerequisite: 1.0 philosophy credit at the 300 level.

A detailed study of the speech-act theory of language use with additional attention given to such notions as reference and predication.

406.0 (606.0) Theory of Knowledge

Prerequisite: 1.0 philosophy credit.

An attempt to analyze the various concepts of human knowledge and to find the limits of that knowledge. Traditional approaches to problems in the theory of knowledge will be considered as well as current work, including the ethics of belief.

407.1(2) [607.1(2)] Philosophy of Perception

Prerequisite: 1.0 philosophy credit above the 200 level.

This course examines various theories of perception and related philosophical issues. Selected issues may include: perception as a source of knowledge or skepticism, indirect vs. direct perception, innate perceptual mechanisms, perceptual cognition and consciousness.

416.0 (616.0) Advanced Logic and Methodology

Prerequisite: PHI 314.0 or 315.0.

This largely tutorial course continues and develops the work of PHI 314.0 or 315.0. Depending on their academic orientation, participating students select one or two of the following groups of disciplines: natural sciences, social sciences, humanities, business administration, or logic and mathematics. Works, or portions of works, from the selected disciplines are subjected to detailed, rigorous logical analysis. More general methodological issues arising in the selected disciplines are also investigated. These issues include the nature, soundness and value of various methods and approaches.

440.1(2) [640.1(2)] Medieval Philosophy: Early Period to 12th Century

Prerequisite: 1.0 philosophy credit.

An examination of the major philosophical doctrines and currents in Western Europe from the period of Augustine to the end of the 12th century.

441.1(2) [641.1(2)] Medieval Philosophy: 13th, 14th Centuries

Prerequisite: 1.0 philosophy credit.

An examination of the major philosophical doctrines and currents in Western Europe in the 13th and 14th centuries.

442.1(2) [642.1(2)] Early Modern Philoaphy: The Rationalists

Prerequisite: 1.0 philosophy credit.

A critical examination of works by Descartes, Spinoza and Leibniz with attention focused on their theories of knowledge and metaphysics.

643.1(.2) [643.1(.2)] Early Modern Philosophy: The Empiricists
Prerequisite: 1.0 philosophy credit.

A critical examination of works by Locke, Berkeley and Hume with attention focused mainly on their theories of knowledge, meaning, and perception.

644.1(.2) [644.1(.2)] Later Modern Philosophy: Kant
Prerequisite: 1.0 philosophy credit.

A lecture and seminar course dealing with Kant's epistemological and moral philosophy.

645.1(.2) [645.1(.2)] Later Modern Philosophy: The German Idealists
Prerequisite: 1.0 philosophy credit.

A lecture and seminar course dealing with the works of some of the German philosophers characterized as "Idealists" in virtue of their similar reactions to Kant. Fichte and Hegel will receive special attention.

650.0 (650.0) Phenomenology
Prerequisite: 1.0 philosophy credit.

The origins, development, concepts, method and influence of the phenomenological movement in contemporary philosophy.

Texts: Sections from Husserl, Heidegger, Sartre, Merleau-Ponty.

652.0 (652.0) Philosophy of Science
Prerequisite: PHI 200.0.

An introduction to the main problems of the philosophy of science designed to familiarize students with some of the contemporary analyses of scientific concepts and methods.

654.1(.2) [654.1(.2)] Philosophy of History
Prerequisite: 1.0 philosophy credit.

A critical study of the philosophical views on the course of human history (its pattern, purpose and value) and an examination of the aim, nature and validity of historical knowledge.

655.1(.2) [655.1(.2)] Existentialism: The 19th Century: Kierkegaard, Nietzsche
Prerequisite: 1.0 philosophy credit.

A lecture and seminar course examining the 19th century origins of the existentialist movement in contemporary philosophy, with specific investigation of the writings of Kierkegaard and Nietzsche.

656.1(.2) [656.1(.2)] Existentialism: The 20th Century: Jaspers, Marcel, Camus, Sartre
Prerequisite: 1.0 philosophy credit.

A lecture and seminar course examining the 20th century expression of the existentialist movement in philosophy through study of the writings of Jaspers, Sartre, Marcel and Camus.

665.0 (665.0) Analytic Philosophy
Prerequisite: 1.0 philosophy credit.

A lecture and seminar course that examines the origins, expressions, and significance of the contemporary analytic movement in philosophy.

667.1(.2) [667.1(.2)] Augustine on Philosophy
Prerequisite: 1.0 philosophy credit.

A lecture and seminar course which explores the meaning of philosophy and its relation to theology in the writings of the early great Christian thinker, Augustine of Hippo.

668.1(.2) [668.1(.2)] Aquinas on Philosophy
Prerequisite: 1.0 philosophy credit.

A lecture and seminar course which explores the meaning of philosophy and its relation to theology in the writings of the dominant Christian thinker of the high medieval period, Thomas Aquinas.

471.1(.2) [671.1(.2)] Meta-ethics
Prerequisite: 1.0 philosophy credit above the 200 level.

The course investigates the moral concepts that are used in the formulation and evaluation of ethical theories, including: 'morality', 'moral value', 'virtue', 'vice', 'moral right', 'moral obligation', 'justice', and 'good'.

472.1(.2) [672.1(.2)] Foundation of Ethics
Prerequisite: 1.0 philosophy credit above the 200 level.

The course will involve the study of the nature of moral judgements and the logic of moral reasoning.

479.0 (679.0) Senior Seminar
Prerequisite: permission of Department.

The subject matter of the seminars is determined by consultation between instructor and students.

491.0-495.0; 496.1(.2)-499.1(.2); 685.1(.2)-689.1(.2); 690.0-695.0 Reading Courses in Philosophy
Prerequisite: permission of instructor.

The subject matter of this course will be determined by the student in consultation with the instructor.

501.1(.2) [601.1(.2)] Honors/Graduate Seminar
Participants will write and discuss research materials which are connected by a common theme. The aim will be to deepen students' knowledge of the topics studied, while developing effective research methods.

502.1(.2) [602.1(.2)] Honors/Graduate Seminar
Participants will write and discuss research materials which are connected by a common theme. The aim will be to deepen students' knowledge of the topics studied, while developing effective research methods.

509.0 (609.0) Limit and Consent: Core Concepts in Political Theory
Prerequisite: 10.0 credits.

An examination of the concepts of limit (to authority) and consent (by the governed) in the classical political thought of Plato, Aristotle and Cicero, and their articulation in medieval western Europe, with particular attention to the writings of John of Salisbury, John of Paris, Marsilius of Padua and William of Ockham and civil and canon law in the period 1150-1450.

697.0 Master's Thesis
This course accommodates the thesis research and writing required by the Department for any student proceeding to the Master of Arts degree in philosophy.

Political Science (POL)

Chairperson, Professor
Professor
Assistant Professors

R. Landes
E. McBride
T. Arseneau, G. Chauvin,
E. Keeble, D. Nauls,
L. Preyra, M. Royal

Departmental Policy for Majors

Students who intend to complete a major concentration in political science must take a minimum of seven credits (7.0) in political science, including POL 200.0 and 304.0. The Department strongly recommends (but does not require) that a student take POL 401.0 and courses in each of the basic subfields of the discipline: Canadian politics, comparative politics, international relations, and political thought. For students wishing to pursue graduate studies, the Department also strongly recommends at least one 500-level seminar.

Departmental Policy for Honors

The objective of the Bachelor of Arts honors program in political science is to attract and graduate students with a demonstrated capacity to successfully complete postgraduate studies. Students interested in pursuing postgraduate degrees are particularly encouraged to apply.

Admission Requirements

Students should apply for admission officially to the honors program. Forms are available from the Registrar's/Records Office. After admitting students to the honors program, the Department, in consultation with the honors applicants, will assign honors committees, as well as approving both the major and minor areas of concentration. Students should normally complete the formalities for admission to the political science honors program not later than Christmas of Year 3.

A student, in order to be considered for admission to the political science honors program, must normally have a cumulative quality point average of 3.33 in both political science and non-political science courses.

Students are reminded that the admission requirements mentioned above constitute a minimum.

Requirements for Continuation in and for Graduation with Honors in Political Science

Students must meet the Faculty of Arts requirements for the Honors Bachelor of Arts degree.

In order to continue in, and graduate with honors, students must achieve and maintain a yearly and cumulative quality point average of 3.33 in both political science and non-political science courses.

Honors students must complete no fewer than twelve credits (12.0) in political science, of which at least eight (8.0) must be at the 300 level or above. It is expected that not fewer than four of these credits (4.0) will be at or above the 400 level.

The Political Science Department offers courses in four major subfields of the discipline: Canadian politics, comparative politics, international relations, and political thought. Honors students are required to declare one of these subfields as their major area of study and a second subfield as their minor area of concentration. In addition, it is strongly recommended that honors students complete POL 401 (Scope and Methods), and at least one credit (1.0) in each of the four subfields of political science.

Honors students must receive credit for at least two political science seminar courses at the 500 level, in addition to POL 500.0 (Honors Reading Course).

Honors students must pass oral examinations in their major and minor areas of concentration. The examining board will consist of a minimum of two departmental members. Ordinarily, honors students will submit review essays in each of their two subfields. These essays will form the bases of the oral examination(s). The honors oral exam will be two hours in length and will normally be held in March of the final year of study.

An honors student is encouraged to register for five credits (5.0) in the honors year.

Departmental Policy for Minors

Students who intend to take a minor in political science must complete at least four credits (4.0) in political science, including POL 200.0 and POL 304.0. Additional requirements are found in the Faculty of Arts regulation 8 in Section 3 of this Calendar.

200.0 Introductory Political Science

An introduction to the scope and methods of political science. The nature of the state will be examined, as well as the various purposes advanced for its existence. The student will be introduced to various aspects of government, political parties, international relations and political philosophies.

Classes 3 hrs. a week. 2 semesters.

302.0 Democratic Government

Prerequisite: POL 200.0 or permission of instructor.

An examination of fundamental concepts in democratic theory. Special emphasis is placed on the relationship between theory and practice. Four commonwealth countries (Canada, Britain, Australia and New Zealand) serve as the source of examples of the practice of politics in Western democracies.

Classes 3 hrs. a week. 2 semesters.

304.0 Canadian Government and Politics

Prerequisite: POL 200.0 or permission of instructor.

A study of Canadian constitutional democracy, encompassing an analysis of both political institutions and political behavior.

Classes 3 hrs. a week. 2 semesters.

305.0 International Relations

Prerequisite: POL 200.0 or permission of instructor.

A survey of and introduction to the study of international relations. The first term will concentrate on the following topics: nationalism and the rise of the nation-state; elements and evaluation of a nation's power; the balance-of-power system in the classical and nuclear age; international law; and the United Nations. The second term will concentrate on foreign policy decision-making and current foreign policy problems of the major powers.

Classes 3 hrs. a week. 2 semesters.

306.0 Government and Politics in Europe

Prerequisite: POL 200.0 or permission of instructor.

A study of the institutions and politics of the major national political systems of Europe, as well as a consideration of the progress and problems of European integration.

Classes 3 hrs. a week. 2 semesters.

309.0 Law and Politics: The Political Dimensions of the Legal Process

Prerequisite: POL 200.0 or permission of instructor.

An examination of the practical and theoretical connections between law and politics. The course will concentrate on the contemporary public law issues in the United States, Britain and Canada.

Classes 3 hrs. a week. 2 semesters.

310.0 Government and the Media

Prerequisite: POL 200.0 or permission of instructor.

An examination of the influence of government policy, especially as set out in federal and provincial legislation, on the growth and operation of the mass media in Canada. Particular attention will be given to the continuing debate over television and radio regulation and ownership, restraints on film and the press, and problems raised by new technology, e.g., pay-TV, cable channels and communication satellites.

Classes 3 hrs. a week. 2 semesters.

312.0 Government and Politics in the United States

Prerequisite: POL 200.0 or permission of instructor.

An analysis of the American political system in terms of the interrelationship of characteristics salient in the political culture, the social base, the constitutional order, the governmental structure and

the policy process, with special emphasis on the political party system, voting behavior, and the Presidency.

Classes 3 hrs. a week. 2 semesters.

315.0 Canadian Foreign Policy

Prerequisite: POL 200.0 or permission of instructor.

An examination of Canadian foreign policy, with a focus on the content of that policy and on the nature of the decision-making process itself.

Classes 3 hrs. a week. 2 semesters.

317.0 Constitutional Theory

Prerequisite: POL 200.0 or permission of instructor.

A comparative examination of selected sources and authorities respecting fundamental law in the American, British and Canadian traditions. The course will provide students of constitutional law with a theoretical basis for the analysis of constitutions and relevant judicial decisions.

Classes 3 hrs. a week. 2 semesters.

321.1(.2) International Organization

Prerequisite: POL 200.0 or permission of instructor.

A study of international organizations and the many challenges they face, including issues related to security matters, arms control, social cooperation, and economic development, with a special emphasis on the United Nations. In order to highlight the complexity of international decision-making, the course may also include a simulation of a United Nations Committee at work.

Classes 3 hrs. a week. 1 semester.

322.1(.2) Politics of International Trade

Prerequisite: POL 200.0 or permission of instructor.

An examination of the main themes and issues in the international trading community, with an emphasis on the relations between and among developed and developing states.

Classes 3 hrs. a week. 1 semester.

330.0 Introduction to Public Administration

Prerequisite: POL 200.0 or permission of instructor.

A study of the structure and operation of the administrative branch of government, both in theory and practice. Included will be an examination of the evolution of the Canadian federal public administration and public service, with some attention for comparative purposes to related experiences in other nations. The administrative responsibilities and powers of the modern state will be assessed and a sampling of recent organizational theories will be undertaken.

Classes 3 hrs. a week. 2 semesters.

335.0 History of Political Thought

Prerequisite: POL 200.0 or permission of instructor.

A historical survey of the most important political ideas from the classical period of the Golden Age of Athens to this century. The interaction between socio-political conditions and ideas will be stressed.

Classes 3 hrs. a week. 2 semesters.

348.0 Comparative Voting Behavior

Prerequisite: POL 200.0 or permission of instructor.

From a comparative perspective, a study of the nature of voting and electoral behavior in Canada, the United States, Britain and selected other countries.

Classes 3 hrs. a week. 2 semesters.

401.0 Scope and Methods of Political Science

Prerequisite: POL 200.0 or permission of instructor.

An introduction to the concerns and methodologies of modern political science. Included will be a discussion of theories and approaches developed by the empirical school of political scientists.

Classes 3 hrs. a week. 2 semesters.

418.0 International Law

Prerequisite: POL 200.0 or permission of instructor.

A study of the features of public international law as they have developed and have been invoked in diplomatic practice, international law adjudication, and national courts.

Classes 3 hrs. a week. 2 semesters.

419.0 Comparative Constitutional Law

Prerequisite: POL 200.0 or permission of instructor.

A comparative analysis of constitutional systems, this course focuses upon the theory and exercise of judicial review, in the context of either Canadian and American constitutional law, or European constitutional practice. It combines lectures, collateral readings, and the case method.

Classes 3 hrs. a week. 2 semesters.

425.0 Spying and International Politics

Prerequisite: POL 200.0 or permission of instructor.

An analysis of the development, role, techniques, and impact of spying on the conduct of international relations.

Classes 3 hrs. a week. 2 semesters.

440.0 Canadian-American Relations Since World War II

Prerequisite: POL 200.0 or permission of instructor.

This course focuses on an analysis of Canadian-American relations since 1945. The course examines different theoretical approaches to the relationship, as well as a variety of case studies to evidence the nature and extent of Canada-U.S. relations both in the bilateral context and in the multilateral context.

Classes 3 hrs. a week. 2 semesters.

445.0 Introduction to Public Policy

Prerequisite: POL 200.0 or permission of instructor.

A critical analysis of public policy formation, the content of public policies, and impact upon society.

Classes 3 hrs. a week. 2 semesters.

446.0 Comparative Political Parties

Prerequisite: POL 200.0 or permission of instructor.

A comparative analysis of the changing structures and functions of selected parties and party systems.

Classes 3 hrs. a week. 2 semesters.

447.1(.2) Canadian Political Parties

Prerequisite: POL 200.0 or permission of instructor.

The purpose of this course is to identify and explain continuity or change in Canadian political party beliefs and behaviour. Particular emphasis will be placed on the ability of political parties to adapt to social change and to meet challenges posed by new social movements and interest groups.

Classes 3 hrs. a week. 1 semester.

450.1(.2) Women in Canadian Politics

Prerequisite: POL 200.0 or permission of instructor.

This course is designed to introduce students to the topic of women's participation in Canadian politics. The course is divided into three sections beginning with a historical overview of women's political gains in Canada from the late 1800's to 1990, followed by an introduction to feminist theory, and finally an examination of women as voters, party workers, and candidates within the political system.

Classes 3 hrs. a week. 1 semester.

455.0 Canadian Defence Policy

Prerequisite: POL 200.0 or permission of instructor.

This course examines the evolution of Canadian defence policy and the ideas, structures, and processes which shape the formulation of defence policy in Canada. Particular emphasis will be placed on new issues on the national security agenda and how Canada ought to deal with them.

Classes 3 hrs. a week. 2 semesters.

**457.0 Politics and Government in Ireland
[IRS 457.0]**

Prerequisite: POL 200.0 or permission of instructor.

A survey of Irish history will lead to more detailed consideration of British administration in Ireland, and of government in the Republic of Ireland and in Northern Ireland.

Classes 3 hrs. a week. 2 semesters.

460.1(.2) Classical Political Thought

Prerequisite: POL 200.0 or permission of instructor.

An examination of the political ideas of the Greeks and Romans of the Classical period. Plato, Aristotle, Thucydides, Polybius, Cicero and others will be studied.

Classes 3 hrs. a week. 1 semester.

461.1(.2) Political Thought of the Renaissance and Reformation

Prerequisite: POL 200.0 or permission of instructor.

An examination of the political ideas of the Renaissance period in Europe. Dante, Machiavelli, More, Luther, Calvin and the French religious pamphletists will be examined.

Classes 3 hrs. a week. 1 semester.

462.1(.2) Early Modern Political Thought

Prerequisite: POL 200.0 or permission of instructor.

An examination of the political ideas of the seventeenth and eighteenth centuries. Hobbes, Locke, Montesquieu, Rousseau, Burke and Hume will be studied.

Classes 3 hrs. a week. 1 semester.

463.1(.2) Modern Political Thought

Prerequisite: POL 200.0 or permission of instructor.

An examination of the modern liberal and socialist traditions. Bentham, J. S. Mill, T. H. Green, Karl Marx, Lenin and some of their respective disciples will be studied.

Classes 3 hrs. a week. 1 semester.

470.0 Empirical Democratic Theory

Prerequisite: POL 200.0 or permission of instructor.

An examination of the findings of modern behavioral research and their impact on the theory and practice of democratic government. Particular attention will be given to the interplay between classical democratic theory and current political science research.

Classes 3 hrs. a week. 2 semesters.

490.0 Directed Reading in Political Science

Prerequisite: permission of Department.

This course is organized by an individual faculty member in agreement with the department as a whole, and is designed to supplement or provide an alternative to regular courses in political science, according to the special needs and interests of the student.

Classes 3 hrs. a week. 2 semesters.

495.1(.2) - 499.1(.2) Selected Topics in Political Science

Prerequisite: POL 200.0 or permission of instructor.

The subject matter of particular half-credit courses will be announced from time to time by the Department. These courses will analyze specialized areas of political science not normally covered in our regular Departmental offerings.

Classes 3 hrs. a week. 1 semester.

500.0 Honors Reading Course

Prerequisite: restricted to honors students in political science.

Through examinations, papers, and extensive readings, honors students will use this course to prepare themselves for the required honors oral examination.

Classes 2 hrs. a week. 2 semesters.

550.0 Seminar in the History of Political Thought

Prerequisite: permission of instructor.

An intensive study of major trends in political thought, ancient and modern, with special attention to contemporary political doctrines, ideologies, their transformation and interrelation in the course of history and their interrelation with social and political conditions.

Classes 2 hrs. a week. 2 semesters.

551.0 Canadian Government Seminar

Prerequisite: permission of instructor.

An analysis of selected aspects of Canadian politics and government using a comparative approach. Topics include: political culture, interest groups, political parties, voting behavior, Parliamentarianism and bureaucracy. This seminar emphasizes student presentation and group discussions.

Classes 2 hrs. a week. 2 semesters.

552.0 Seminar in Comparative Government

Prerequisite: permission of instructor.

Conceived as a work-study group, this seminar is designed for students interested in the use of the comparative method in the analysis of contemporary national political systems.

Classes 2 hrs. a week. 2 semesters.

553.0 International Studies Seminar

Prerequisite: permission of instructor.

A seminar on the contemporary interaction of the major powers, with special consideration of selected world problems, tensions, trends and developments.

Classes 2 hrs. a week. 2 semesters.

554.0 Seminar in Political Behavior

Prerequisite: permission of instructor.

An analysis of the behavioral movement in political science. Particular attention will be given to the problems of political strategy and political conflict.

Classes 2 hrs. a week. 2 semesters.

555.0 Seminar in Public Law

Prerequisite: permission of instructor.

An advanced study of public law. This seminar will involve student examination of various aspects of public law, with special emphasis on the role of judges in the process of law development.

Classes 2 hrs. a week. 2 semesters.

Psychology (PSY)

Chairperson, Professor
Professors

D. Bruce
V. Catano, J. Darley, K. Hill,
R. Konopasky, I. Lenzer
G. Pretty, P. Street, B. Vulcano
H. Chipuer, S. Desmarais

Associate Professors
Assistant Professors

The Psychology Department offers a broad range of courses and programs that are designed to meet the needs of students from a variety of backgrounds with varying degrees of interest in psychology. Psychology is normally begun in Year 1. The beginning course in psychology, Introduction to Psychology (201.0), is a broad survey of the discipline and is a prerequisite for all other psychology courses. The Department offers major and honors programs leading to both the Bachelor of Science and Bachelor of Arts degrees as well as a Master of Science program in applied psychology.

Psychology as an Elective Subject

Students who are not intending to major in psychology normally register in 200-level and 300-level courses. However, students who meet course prerequisites or obtain permission of the course instructor may also register in 400-level courses. Arts students who wish to minor in psychology, commerce students seeking to fulfill degree requirement 4-c, and science students seeking to fulfill degree requirements 4-b, 6-b, or 10-c should contact the Psychology Chairperson to arrange a program of study relevant to their individual needs.

Psychology as a Major Program

Psychology is both a natural and a social science. Consequently, students may pursue a program of studies leading to either a Bachelor of Science or a Bachelor of Arts degree while majoring in psychology. In addition to the general degree requirements specified in the Faculties of Science and Arts sections of this Calendar for the Bachelor of Science and Bachelor of Arts degrees, the Department requires a compulsory core program consisting of seven credits (7.0) including the introductory course (201.0), Learning (301.0), Psychological Statistics and Experimental Design (305.0) — a minimum final grade of C (2.00) is mandatory for each of these courses for majors — and at least two 400-level credits (2.0). A minimum average grade of C (2.00) in psychology courses is required for psychology majors. The same compulsory core program must be completed by students who elect to do a double major in psychology and another subject. Students who intend to declare a major in psychology should consult the Psychology Chairperson to determine which program, Bachelor of Science or Bachelor of Arts, is best suited to their career goals.

Psychology as an Honors Program

The Psychology Department offers programs leading to either a Bachelor of Science (Honors) or a Bachelor of Arts (Honors) degree. Both programs are designed for students of above-average ability who wish to proceed to graduate work in psychology, or related areas, or intend to pursue careers in psychology. These honors programs follow the general regulations of the Science and Arts Faculties, respectively, as stated in this Calendar. For admission to the honors program in psychology, students must have a minimum cumulative quality point average of 3.00 and must have completed PSY 301.0 and 305.0. These requirements are minimum standards only. Because the Department has limited resources for offering the honors program, some students who meet the minimum standards may have to be denied admission to the program. Two departmental regulations, in addition to those specified under psychology as a major program, are that honors students take PSY 549.0 (Honors Seminar) and that of the minimum ten psychology credits (10.0) required to graduate, at least six (6.0) be at the 400 level or above.

Honors students should consult with the Chairperson or their thesis advisor to determine a program of study that is appropriate to their future plans.

Psychology as a Graduate Program

The Department offers a Master of Science degree in applied psychology with concentrations in clinical and industrial/organizational psychology. Students are admitted with full-time or part-time status. Applications must be received by March 1. First year students who wish to change their status after they have received notice of their admission must make this request to the Chairperson before June 1. Change in status must be approved by the

Department. Requirements for the Master of Science program for full-time and part-time status students are detailed elsewhere in this Calendar. Undergraduate students who wish to gain admittance to the Master of Science program should note that a normal entrance requirement is an honors degree or its equivalent. Undergraduates should also be aware that there are a limited number of placements available in the program and that competition for these positions is extremely high. Additional information on the program may be obtained by contacting the Graduate Program Coordinator in the Psychology Department.

201.0 Introduction to Psychology

The science of behavior and mental processes, methods and measurement, psychological basis of behavior, maturation and development, individual differences and intelligence, personality, sensory processes and perception, learning, memory and thinking, motivation and emotion, social and clinical psychology, applications of psychology.

Each person taking this course may act as a subject for psychological experiments for a certain number of hours. A minimum final grade of C is required for psychology majors.

Classes 3 hrs. a week. 2 semesters.

301.0 Psychology of Learning

Prerequisite: PSY 201.0. The student is advised to take PSY 305.0 concurrently.

Classical and instrumental conditioning will be studied as examples of the learning process in animals and humans. Topics will include acquisition, reinforcement, punishment, extinction, aversive conditioning, stimulus control of behavior, discrimination, and complex problem solving. Different theoretical approaches to learning will be discussed. Students are given an opportunity to examine various learning principles in laboratory experiments involving human and animal subjects. A minimum final grade of C is mandatory for majors.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

303.0 Motivation and Emotion

Prerequisite: PSY 201.0.

An analysis of the factors underlying and directing behavior, starting with basic biological drives (thirst, hunger, sex, etc.) and proceeding to more complex motivational and emotional states. The study of emotions will include a description of how different emotions are experienced, an analysis of bodily changes accompanying different emotional states, and a look into how these states are expressed in verbal and non-verbal behavior.

Classes 3 hrs. a week. 2 semesters.

305.0 Psychological Statistics and Experimental Design

Prerequisite: PSY 201.0 and one of Nova Scotia Grade 12 MAT 441 or 442, MAT 010.1(.2)/011.1(.2), MAT 050.1(.2)/051.1(.2), or equivalents. Students are advised to take PSY 301.0 concurrently.

Importance of statistics in psychology, probability and probability distributions, binomial and normal distributions, characteristics of distributions, measures of central tendency and variability, sampling and hypothesis testing, and non-parametric statistics. The design of experiments in psychology in the light of the above, the variation of factors and observation of changes in responses, interpretation of results based on experimental design and application of the relevant statistics. A minimum final grade of C is mandatory for majors.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

Note: Students risk failing this course if Nova Scotia Grade 12 MAT 441 or 442 or equivalent has not been completed.

306.0 Psychobiology

Prerequisite: PSY 201.0.

An examination of how biological events shape human behavior. Topics include evolution, the genetic properties of behavior, the parent-child relationship, origins of language, emotions and motivation, sexual, and aggressive behavior.

Classes 3 hrs. a week. 2 semesters.

310.1(.2) Introductory Social Psychology I

Prerequisite: PSY 201.0.

The history of this major branch of psychology is outlined showing how the scientific study of interpersonal behavior has progressed, up to the present, in theory and methodology. The aim of this course is to give an understanding of basic concepts, assumptions and contemporary theories in social psychology and to give a sound acquaintance with the logic and procedures for formally testing these theories.

Classes 3 hrs. a week. 1 semester.

311.1(.2) Introductory Social Psychology II

Prerequisite: PSY 201.0.

This second course in social psychology introduces the student to the research methods and paradigms which have been developed over fifty years of work in this major branch of academic psychology. Some of these methods are now applied to current Canadian problems such as bilingualism, language, and group relations. Discussion of these special issues is intended to exemplify research models and to throw light on the general questions and controversies of the discipline.

Classes 3 hrs. a week. 1 semester.

326.0 Introduction to Industrial Organizational Psychology

Prerequisite: PSY 201.0.

An introduction to the methods and problems in industrial/organizational psychology. Representative topics will be drawn from the areas of organizational behavior, personnel psychology, human factors, and consumer behavior.

Classes 3 hrs. a week. 2 semesters.

330.0 Child Development

Prerequisite: PSY 201.0.

An introduction to development psychology including a consideration of genetic and prenatal factors in development, socialization, sexual differentiation, and cognitive development.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

332.1(.2) Adolescent Development

Prerequisite: PSY 201.0.

An examination of the biological, cognitive, and personal growth of adolescents. Topics include physical growth patterns, development of interpersonal relationships, cognitive growth, and theories of adolescent development.

Classes 3 hrs. a week. 1 semester.

333.0 Abnormal Psychology

Prerequisite: PSY 201.0. Concurrent registration in PSY 301.0 and PSY 305.0 is advised.

Examination of theoretical, research, and applied aspects of abnormal psychology. Consideration will be given to the description, origin, and planned change of maladaptive functioning. Topics may include the role of social, economic, and political factors in disorder, the history of the area, professional roles.

Classes 3 hrs. a week. 2 semesters.

347.1(.2) The Psychology of Longevity and Aging

Prerequisite: PSY 201.0.

This course is an overview of the neuropsychological, physiological, clinical and personological aspects of the later phases of life. Normal and abnormal patterns of aging are examined. Topics include research from neuropsychology, neuroanatomy, personality, clinical psychology, gerontology and geriatrics.

Classes 3 hrs. a week. 1 semester.

348.1(.2) Psychology of Gender Roles**[WMS 348.1(.2)]**

Prerequisite: PSY 201.0.

An examination of the psychology of gender role differences; gender role identity as determined by biological and environmental factors. Effects of gender role conformity on communication, personal adjustment, relationships, work behavior and mental health will be discussed.

Classes 3 hrs. a week. 1 semester.

349.1(.2) Drugs and Behavior

Prerequisite: PSY 201.0.

Effects of psychoactive drugs on normal and abnormal behavior and on consciousness. Explanations are in terms of brain functioning. Discussion of methods used in the study of drug effects on animals and humans.

Classes 3 hrs. a week. 1 semester.

393.0 The Psychology of Adjustment and Growth

Prerequisite: PSY 201.0.

This course focuses on a framework for studying positive behavior and how psychological principles apply to adult development. In particular, the course covers topics that aid understanding how life challenges threaten effective functioning and covers issues concerning human adjustment and psychological growth.

Classes 3 hrs. a week. 2 semesters.

401.1(.2) Analytic Techniques for Applied and Experimental Psychology

Prerequisite: PSY 305.0.

Extended coverage of material introduced in PSY 305.0. Topics will include multi-factor, between-subject and within-subject experimental designs, and observational or correlational designs. The analysis of data from these designs will be considered in relation to measurement problems encountered in applied and experimental psychology. Both empirical and simulated experiments will provide examples for practice and discussion.

Classes 3 hrs. a week. 1 semester.

402.0 Psychology of Sensation and Perception

Prerequisite: PSY 305.0.

An examination of how sensory systems (e.g., vision, audition) abstract and process information from the physical world and the resultant effect on awareness and attention. Topics include neural communication and organization, receptor and cortical processes, coding mechanisms, specification of the stimulus, perception of brightness and color, perceptual memory, form perception and recognition, perception of space, time and motion, extra-sensory perception, perceptual illusions.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

405.0 Human Neuropsychology

Prerequisite: Year 3 psychology majors.

Conceptions of human brain-behavior relationships. The effects of various types of brain lesions on human behavior. Implications for theories of higher mental functions. Study of neuropsychological assessment techniques.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

406.0 Ethology

Prerequisite: PSY 301.0 or 305.0 or 306.0.

An examination of human and animal behavior: comparative development of social and emotional behavior, evolution, reflexive behavior, courtship, mating, and parental behavior.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

411.0 Industrial/Organizational Psychology

Prerequisite: PSY 326.0.

Extended coverage of material introduced in PSY 326.0. Lectures are designed to explore the application of psychological concepts to problems encountered in work environments. Topics may include organizational environments, leadership, communication, motivation, decision-making, personnel selection, training and performance, industrial relations and occupational health and safety.

Classes 3 hrs. a week. 2 semesters.

412.0 Human Information Processing

Prerequisite: PSY 301.0 and 305.0.

An examination of the processes by which sensory inputs are transformed, reduced, elaborated, stored, recovered and used. The course may include topics such as contemporary theories of perception and memory, psycholinguistics, computer simulation of cognitive processes, models of information processing, concept learning and formation, and decision making processes.

Classes 3 hrs. and lab 3 hrs. a week. 2 semesters.

416.1(2) Experimental Social Psychology I

Prerequisite: PSY 301.0, 305.0, and either 310.1(2) or 311.1(2).

Theories, research methods and applications in social psychology are covered in the lecture course together with laboratory experiments designed to investigate social interactions and communication in dyads.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Note: Students who have received credit for PSY 410.0 may not enroll in this course.

417.1(2) Experimental Social Psychology II

Prerequisite: PSY 301.0, 305.0, and either 310.1(2) or 311.1(2).

Current social issues and such topics as social conformity, aggression, cooperation and exchange are covered in lectures together with laboratory experiments on these topics and on social communication in groups.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

418.1(2) Environmental Psychology I

Prerequisite: PSY 301.0 or 305.0.

An examination of the evolutionary and biological background of humans relative to present urban environment. Territoriality, space and human movements, privacy and crowding.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Note: Students who have received credit for PSY 413.0 may not enroll in this course.

419.1(2) Environmental Psychology II

Prerequisite: PSY 418.1(2).

Architectural design of housing, offices, and hospitals. Perception of the city, cognitive maps, the sonic environment, the street and its social functions. Stress in the urban environment.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

Note: Students who have received credit for PSY 413.0 may not enroll in this course.

421.1(2) History of Psychology

Prerequisite: PSY 301.0 and 305.0.

An examination of the development of psychology as a science. Consideration is given to controversies and recurrent themes in psychological theory and method, to the evolution of sub-disciplines within the field, and to the life and work of major figures in psychology's history.

Classes 3 hrs. a week. 1 semester.

431.1(2) Social Development in Children

Prerequisite: PSY 301.0 and 330.0 (which may be taken concurrently).

An examination of socialization and the development of individual differences in children and adolescents. There will be an emphasis on the development of prosocial behavior and attitudes, such as cooperation, altruism, and moral development. Other probable topics include aggression, egocentrism, television and the child, and child-rearing influences on development.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

432.0 Psychology and Religion

[REL 460.0]

Prerequisite: Year 3 psychology majors or students who are enrolled in the major, minor, or honors program in religious studies.

A study of various aspects of common interest to religion and psychology: values, images of humanity, the psychological functions of religion. Discussion of phenomena such as faith healing, glossolalia, transcendental experiences, conversion, meditation, and issues such as freedom and responsibility, attitudes towards the body, the role of sin and guilt in personal distress. Prior religious knowledge and experience are advantageous.

Classes 3 hrs. a week. 2 semesters.

433.0 Personality Theory and Research

Prerequisite: Year 3 psychology majors.

A review of contemporary theories of personality through intuitive, rational, historical, and empirical methods.

Classes 3 hrs. a week. 2 semesters.

435.0 Clinical Psychology

Prerequisite: PSY 333.0 and Year 3 psychology majors.

A review of the origins, development, organization, practice and future of clinical psychology with an emphasis on theory and research in counselling and psychotherapy. Also included will be an examination of the design and implementation of improvement programs, consultation, diagnostics, reporting methods, professional training, organization and ethics, relations to other professions.

Classes 3 hrs. a week. 2 semesters.

440.0 Psychological Tests and Measurements

Prerequisite: PSY 305.0, 333.0, and 433.0 (which may be taken concurrently).

This course examines psychological measurement and the construction of scales and tests. Tests in common use, for example, intelligence, aptitude, ability, personality and pathology tests, are reviewed. These tests are also evaluated in terms of reliability and validity. The ethics of testing is also considered.

Classes 3 hrs. and lab 1 1/2 hrs. a week. 2 semesters.

449.0 Senior Seminar

Prerequisite: Year 3 standing and permission of the Department.

Applications for this course must be made in March of Year 2 to the Chairperson of the Department of Psychology.

An individual research and/or reading course in psychology.

Classes and lab 6 hrs. a week. 2 semesters.

450.1(2) Behavior Problems of Children

Prerequisite: PSY 301.0 and a minimum grade of C in PSY 330.0.

A review of problems exhibited by children in home and educational settings (e.g., autism, depression, hyperactivity, learning disabilities). Approaches to treatment will also be discussed.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

460.1(2) Development in Human Infancy

Prerequisite: PSY 330.0.

An examination of the development of behavioral processes of the human infant. Surveys of recent research in infant learning, visual and auditory perception, social and cognitive development.

Classes 3 hrs. a week. 1 semester.

485.1(2) Behavioral Analysis and Change

Prerequisite: PSY 301.0.

A review of learning theory as it applies to behavior therapy. Survey of behavior modification techniques including relaxation training, counter conditioning, assertive training, token economies, modelling, shaping and aversive techniques. Comparison with traditional, dynamic theories and applications.

Classes 3 hrs. and lab 1 1/2 hrs. a week. 1 semester.

486.1(2) Advanced Behavioral Analysis and Change

Prerequisite: PSY 301.0 and 485.1(2).

Cognitive behavior therapy. Self-directed behavior therapy. Biofeedback and special topics: hypnosis, smoking, alcoholism, stress reduction, obesity, and mood change.

Classes 3 hrs. and lab 1 1/2 hrs. a week. 1 semester.

490.1(2) Introduction to Health Psychology

Prerequisite: PSY 305.0.

This course focuses on understanding how psychological factors contribute to the promotion and maintenance of good physical health, to the prevention and treatment of physical illness, and to the development of psychological well-being.

Classes 3 hrs. a week. 1 semester.

498.0 Community Psychology

Prerequisite: PSY 305.0.

Delivery systems of psychological services: social services, agencies, institutions and private practicing professionals. Epidemiological surveys. Preventative psychiatry. Community psychology. Interventions: individual-social-systems interventions and intersystem relationships.

Classes 3 hrs. a week. 2 semesters.

549.0 Honors Seminar

Prerequisite: Year 4 honors standing.

A research course in psychology. It is expected that the student will produce an honors thesis based on work in this course. The course is required for fifth year honors students.

Classes and lab 6 hrs. a week. 2 semesters.

The following courses are available only to students registered in the Master of Science in Applied Psychology Program and with permission of the Chairperson of the Department of Psychology to students registered in other master's programs.

601.0 Advanced Psychological Statistics and Research Design

Prerequisite: graduate standing.

Statistics applied to psychological research: statistical inference, hypothesis testing, analysis of variance including simple and advanced experimental designs, correlation, and an introduction to regression along with other multivariate methods. Also to be presented will be the logic of experimental and quasi-experimental methods including naturalistic approaches to hypothesis testing.

603.1.(2) Advanced Assessment

Prerequisite: graduate standing.

A survey of classical and modern test theory including the study of the principles of psychological testing to provide a basis for technical evaluation of test materials and creation of measures for applied purposes. Topics covered include reliability and validity, generalizability, test bias, scale construction, test development, and other issues related to psychological measurement.

604.1.(2) Clinical Assessment

Prerequisite: graduate standing.

A study of assessment procedures commonly used in clinical and counselling settings for planning and evaluating case management. Students will acquire skills in the administration and interpretation of selected instruments, and will practice integrating results in the form of psychological report writing.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

605.1.(2) Assessment of Work Behavior

Prerequisite: graduate standing.

A study of the assessment techniques used to select, place, evaluate, and counsel personnel. Procedures used to measure job satisfaction, motivation, and leadership are also discussed. Students are expected to become proficient in the use of the selected test instruments.

606.1.(2) Neuropsychological Assessment

Prerequisite: graduate standing.

Study of the most frequently used tests in the assessment of brain damage. Discussion of the validity of these tests for the different diagnoses of functional and organic disorders of patients encountered in neuropsychiatric settings.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

610.1.(2) Applied Multivariate Analysis

Prerequisite: graduate standing.

This course assumes a working knowledge of the primary univariate statistical techniques, specifically point estimators, univariate inferential tests, correlation, and analysis of enumerative data. From that base, this course examines the purposes, uses, analysis and inter-relatedness of a sample of the following multivariate techniques: Hotellings T^2 , multivariate analysis of variance and post-hoc procedures, factor analysis, discriminant analysis, and canonical correlation. Considerable use will be made of at least one of the major computerized statistical packages.

615.1.(2) Social Skills and Mental Health

Prerequisite: graduate standing.

The social skills training approach. The analysis of social behavior. Development and deficiency in social skills: a review of the evidence. Changing social behavior. Outcome studies of skills training: a review. Assessment and training. The training manual.

620.1.(2) Topics in Engineering Psychology

Prerequisite: graduate standing.

Selected topics related to the application of experimental psychology to the study of human factors involved in work, e.g., the description, evaluation and/or design of jobs and equipment, the psychophysiology of human performance, system development, person-machine interactions, accidents and safety.

625.1.(2) Topics in Industrial Psychology

Prerequisite: graduate standing.

An intensive study of current theories and research on a topic selected from the following: employee selection, placement, and evaluation; applied motivation; leadership; communication; decision making; training in industry.

640.1.(2) Field Research Methods

Prerequisite: graduate standing.

Research methods as currently applied to a variety of clinical and organizational problems. These methods consist of such special techniques as interviewing programs, their design and construction, the analysis of interview material, questionnaire construction and administration, attitude surveys, non-participant and participant observational studies, naturalistic observations and field experiments.

650.1.(2) Community Psychology

Prerequisite: graduate standing.

A survey of the function of professional psychology in the community. Study of the design, implementation, and evaluation of programs, review of epidemiological research, study of social service agencies and clinical settings, institutions, alternative delivery systems. The ethics and politics of the mental health enterprise.

655.1.(2) Counselling and Psychotherapy

Prerequisite: graduate standing.

A study of short-term counselling and psychotherapy techniques. Emphasis will be placed on what the counsellor actually does. Single case methods for evaluating process and outcome will be reviewed. Consideration will be given to contemporary issues concerning values and ethics.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

660.1.(2) Behavior Therapies

Prerequisite: graduate standing.

Study and training in the application of the principles and technology of behavior modification to a variety of human problems. Consideration will be given to biofeedback, modelling, contingency contracting, and token economies. Students will be expected to identify target behaviors and carry out modification procedures. The results of projects will be reported in suitable form for class presentation and discussion.

665.1.(2) Topics in Applied Child Psychology

Prerequisite: graduate standing.

Principles of development applied to children's behavior in community settings. Possible topics include methods of assessment and observation of children, psychological and educational counselling, behavior modification, and special problems in conducting research with children. Course content will vary from year to year and will be guided by student needs and interests. May be repeated once for course credit.

670.1.(2) Special Seminar: Topics

Prerequisite: graduate standing.

Presentation of topics not covered in the regular graduate curriculum offered according to student interest and the availability of qualified faculty. May be repeated for credit once.

676.1.(2) Geroneuropsychology

Prerequisite: graduate standing.

Neuropsychology spans the growing fields of gerontology and geriatrics. This course focuses on recent developments in the neuropsychology of aging and the dementias, as well as on normal and pathological aging of the central nervous system.

680.1(2) Psychological Disorders

Prerequisite: graduate standing.

Intensive study of theory and research addressed to the description, classification, etiology and development of psychopathology.

690.0 Practicum and Directed Readings

Prerequisite: graduate standing.

Supervised training in the application of psychological principles, techniques, and instruments, in various practical settings. Students are expected to accumulate at least 500 hours of practicum training coordinated with relevant readings.

695.0 Thesis

Prerequisite: graduate standing.

Experimental research or field study conducted under the supervision of an advisory committee.



Psychology lab

Religious Studies (REL)

Chairperson, Professor
Professor
Associate Professor
Lecturer
Professor Emeritus

P. Bowlby
L. Murphy, S.J.
S. Armstrong
A. Dalton
E. Stieglman

The Religious Studies Department offers courses on the religious dimension of human life. In fulfilling that task the curriculum includes courses in three areas:

1. Comparative Religion

The comparative study of religion includes courses on the major religious traditions of the world as well as courses which compare characteristics of religious life across several religious traditions.

2. Thematic Studies in Religion

Thematic courses are offered as a way to explore various disciplines and their approach to the study of religion or to engage in a debate around a theme structured to include both religious and non-religious views. Such courses may examine a theme comparatively in order to show the views of different religious traditions or a theme may be presented in terms of a debate between religious and non-religious understandings.

3. The Christian Tradition

By virtue of its charter and history, Saint Mary's University has a special responsibility to teach courses on Christianity. The Religious Studies Department fulfills that purpose by offering a number of courses on the Bible, on issues of debate within the Christian Tradition, and the formative role of Christianity in Western Culture and Tradition.

Electives

Students seeking an elective may take any Religious Studies course at the 200 or 300 level.

Degree Requirements

Religious Studies courses at the 200 or 300 level satisfy a humanities requirement in the Arts Faculty; free electives in the Commerce Faculty and the two humanities requirements in the Faculty of Science.

A Minor in Religious Studies

A minor in Religious Studies may be completed by taking four Religious Studies credits (4.0). Two (2.0) of the credits must be at the 300 level. An overall grade-point average of 2.00 must be maintained in the four credits.

A Major in Religious Studies

Students majoring in Religious Studies must fulfil the following requirements:

1. the equivalent of six and one half credits (6.5) in the Department;
2. two (2.0) of the six and one half credits (6.5) must be at the 400 level. (Normally, 400 level courses are supervised only by faculty in the Religious Studies Department. Students must have Departmental and course instructor approval to complete a 400 level requirement in a cross-listed course.);
3. in addition to the two 400-level credits (2.0), majors must complete REL 480.1(2) Advanced Seminar for Majors in Religious Studies;
4. an overall minimum quality point average of 2.00 in the courses counted toward the major;
5. at least one credit (1.0) from each of the three general areas in the Department: Comparative Religion, Thematic Studies in Religion, the Christian Tradition.
6. while not required for the completion of the major, one credit (1.0) in a classical language (Hebrew, Greek, Latin, or an alternate acceptable to the Department) or in an Asian language acceptable to the Department, may be among the courses counted toward completion of the major in Religious Studies.

Advanced 400-Level Courses for Majors and Honors Students in Religious Studies

All Religious Studies courses at the 300 level are also given a 400 number. The 400 number is to be used only by Religious Studies

majors and honors students to indicate the courses in their program taken at an advanced level. Requirements for these 400-level advanced courses are approved by the Department and normally involve reading a supplementary bibliography and preparing more advanced writing assignments than are required of students taking courses at the 300 level. A student may not receive credit for a course at both the 300 and 400 levels.

Honors in Religious Studies

Religious Studies offers an honors program in conformity with the Faculty of Arts requirements for an honors degree. In addition to those requirements, an honors student must complete four credits (4.0) at the 400 level; REL 480.1(2) Advanced Seminar for Religious Studies Majors; at least one credit (1.0) in a classical language (Hebrew, Greek, Latin or another acceptable to the Department) or an Asian language acceptable to the Department; and a Departmental honors seminar (590.0-595.0). An honors essay will be written in conjunction with the honors seminar.

Admission to an honors program normally requires Departmental approval no later than the beginning of Year 3. A minimum quality point average of 3.00 in Religious Studies courses is required for admission to, and continuation in, the honors program.

Student Counselling

Majors and honors students must have their Religious Studies courses approved by the Chairperson on an annual basis. In some instances, majors and honors students will be requested to take prerequisites for Departmental courses. Suggested prerequisites are kept on file in the Department. With renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level.

Notes:

- (i) Students may also take elective courses at the 300 level without a prerequisite.
- (ii) With renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level.

Introductory Courses

201.0 The Religious Dimension of Human Life: Introduction to Religious Studies

There are many common life experiences (for instance, the quest for personal identity, the encounter with death, suffering, loneliness, sexuality, wonder, good and evil) which most men and women have sought to address in the context of an organized religion. In addition to studying these experiences which point toward the religious dimension in human life and the ways in which several religions have dealt with them, we shall also look at some secular approaches to the same experiences.

Classes 3 hrs. a week. 2 semesters.

202.0 Introduction to Comparative Religion: When Great Religions Meet

The biblical faiths of Judaism and Christianity took shape against the background of other Near-Eastern religions. Zen Buddhism emerged out of the encounter between Chinese religious traditions and Indian Buddhism. After looking at various examples of meetings between religions, the course will examine how religions develop in the encounter with other traditions and how living religions interpret other faiths. These themes will form an introduction to comparative religion.

Classes 3 hrs. a week. 2 semesters.

203.1(2) Introduction to the Bible: Old Testament

A critical approach to the Bible, involving an inquiry into the cultural and historical context of biblical literature, the meaning and relevance of the Bible for today.

Classes 3 hrs. a week. 1 semester.

204.1(2) Introduction to the Bible: New Testament

A critical approach to the New Testament of the Bible, involving an inquiry into the cultural and historical context of biblical literature, the meaning and relevance of the Bible for today.

Classes 3 hrs. a week. 1 semester.

300 and 400-Level Courses**301.1(.2) [401.1(.2)] Power and Weakness**

All power may corrupt, but who wants to be powerless? This course will explore and contrast biblical and contemporary notions of power. Concepts of the nature and use of power in human experience are crucial for every religious and quasi-religious approach to life. In this course, special attention will be given to the ways in which biblical notions of power and weakness represent a reversal of more ordinary understandings.

Classes 3 hrs. a week. 1 semester.

302.1(.2) [402.1(.2)] Wisdom and Foolishness

No one likes to be thought a fool - still less to be one. This course will explore and contrast biblical and contemporary notions of foolishness. An understanding of where and how wisdom is to be found is central to most religious and quasi-religious approaches to life. In this course, special attention will be given to the ways in which biblical notions of wisdom and foolishness represent a reversal of more ordinary understandings.

Classes 3 hrs. a week. 1 semester.

303.1(.2) [403.1(.2)] Christian Origins

This course treats the formation and development of Christianity as seen through the New Testament and other early Christian texts. It studies the life of Jesus, the origin of the Church, its separation from Judaism, its struggle against Hellenistic religion and philosophy, its early beliefs, morals, and worship.

Classes 3 hrs. a week. 1 semester.

304.1(.2) [404.1(.2)] The New Testament and the End of the World

The New Testament speaks about the destruction of the world, antichrist, judgment, resurrection, a new heaven and a new earth. The course studies Apocalyptic themes in the Gospels, Letters, and Revelation and various interpretations of this literature. Is it possible to know when the end of the world is to come? Or what the next world will be like?

Classes 3 hrs. a week. 1 semester.

305.1(.2) [405.1(.2)] Women in Christian Scripture and Tradition [WMS 305.1(.2)]

This course calls attention to the unconventional attitude of Jesus toward women; it studies the prominence of women in the New Testament, in contrast to early restrictions of their leadership roles. Did Christianity conform, from the beginning, to patriarchal society, betraying its own insight that in Christ "there is neither male nor female" (Galatians 3:28). Has Christian tradition legitimated male dominance? What can the cause of women's equality hope for from Christianity?

Classes 3 hrs. a week. 1 semester.

306.1(.2) [406.1(.2)] Cross-listed as CLA 352.1(.2) Women in Antiquity I**307.1(.2) [407.1(.2)] Cross-listed as CLA 353.1(.2) Women in Antiquity II****308.1(.2) [408.1(.2)] The God Question**

Two problems are studied in this course: the idea of God and the existence of God. Contemporary approaches to these questions will involve the student also in such issues as the nature of language about the sacred, and mythology in religious scriptures.

Classes 3 hrs. a week. 1 semester.

309.0 (409.0) History of Israel [CLA 310.0]

A study of the history of the ancient Hebrew kingdoms of Israel and Judah from the earliest settlements in Palestine to the fall of Jerusalem in 70 A.D.

Classes 3 hrs. a week. 2 semesters.

310.1(.2) [410.1(.2)] Reason or Belief?

The question of religious faith is approached here by placing the subject, or the religious mind itself, under study: What problems have the social sciences presented to the believer? How can one interpret human experience? How might one know if a God revealed himself or herself? Is natural science an obstacle to faith?

Classes 3 hrs. a week. 1 semester.

311.1(.2) [411.1(.2)] Jesus of Nazareth

Jesus of Nazareth: Did Jesus really exist? What did he teach? Why was he killed? What does the resurrection mean? In examining these questions, the course will survey the many responses to Jesus' question, "Who do men say that I am?"

Classes 3 hrs. a week. 1 semester.

312.1(.2) [412.1(.2)] Jesus and Liberation

How has the life and teaching of Jesus made justice the central issue in Christianity today? What is liberation theology in the third world? Is capitalism opposed to the teaching of Jesus? What is Jesus' teaching about the poor, the oppressed, human rights and violent revolution?

Classes 3 hrs. a week. 1 semester.

316.0 (416.0) Cross-listed as ANT 350.0 Anthropology of Religion**317.0 (417.0) Cross-listed as SOC 317.0 Sociology of Religion****319.1(.2) [419.1(.2)] God and Evil**

What are we to make of evil? If God is both all-powerful and all-good, why is there evil in the world? Must there be evil in order for there to be good? Is there any way to make sense of evil? We will examine Christian and non-Christian approaches to the problem of evil as expressed in a variety of works of fiction and non-fiction.

Classes 3 hrs. a week. 1 semester.

323.1(.2) [423.1(.2)] The Islamic Religious Tradition

Islam is one of the most rapidly expanding religious traditions in the world. This course will examine the origins of Islam, its fundamental teachings in the Qu'ran and in the works of some of its major teachers. In addition, the course will survey the history of Islam and contemporary developments in selected areas.

325.1(.2) [425.1(.2)] Myth and Story

The telling of stories and the recounting of myths in ritual settings are two major characteristics of religious traditions. The course will examine in translation a variety of stories and myths from the literature of major world traditions. Critical examination of the myths and stories will involve both locating the myth or story in the religious context of a particular faith and the comparative analysis of major themes. Literary sources will be drawn primarily from Hinduism, Buddhism, Islam and the biblical traditions.

Classes 3 hrs. a week. 1 semester.

326.1(.2) [426.1(.2)] The Hindu Religious Tradition

"Hinduism" is the name westerners give to the religious tradition of South Asia. The course will examine the historical development and literary monuments, such as the "Bhagavadgita", that express the religious life of South Asian peoples.

Classes 3 hrs. a week. 1 semester.

327.1(.2) [427.1(.2)] Buddhist Religious Tradition

The Buddhist religious tradition was founded in South Asia, and moved to China, Japan and Southeast Asia. The founding of Buddhism will be examined through the teachings concerning the life of Siddhartha. Ch'an or Zen Buddhism will provide an insight into Chinese and Japanese Buddhism.

Classes 3 hrs. a week. 1 semester.

328.1(.2) [428.1(.2)] The Catholic Church Today

The Catholic Church has radically changed. What does it teach today about God, salvation, Jesus Christ, faith, Church, Sacraments, and human destiny? Students will be introduced to different interpretations given by some Christian Churches to these beliefs.

Classes 3 hrs. a week. 1 semester.

329.1(.2) [429.1(.2)] Catholicism and Contemporary Issues

What does the Catholic Church say to the world today about human dignity, atheism, community, work, labour, communism and capitalism, nuclear weapons, abortion, birth control, population? Students will be introduced to other views of these questions.

Classes 3 hrs. a week. 1 semester.

334.1(.2) [434.1(.2)] Christian Spirituality Today

A study of the Christian religion as experienced and expressed today by outstanding writers of different traditions. It focuses on the universal themes contained in the spiritual writings of Christianity, including the Catholic, Protestant, and Greco-Russian traditions. Topics studied include: monasticism, prayer, charismatic renewal, community, building the world, justice and charity.

Classes 3 hrs. a week. 1 semester.

336.1(.2) [436.1(.2)] Creation and Evolution: The Religious Issues

The theory of evolution is a powerful tool for answering scientific questions about life in this world. The success of the scientific enterprise has led many people to seek answers to their religious questions in "evolutionary" ideas. On the other hand, the biblical account of creation is a fruitful source of insight into religious questions about why the world is as we find it. The central importance of biblical truth for Christians and Jews had led many of them to seek answers to scientific questions in the creation story. What are the relevant religious questions?

Classes 3 hrs. a week. 1 semester.

337.1(.2) [437.1(.2)] Hindu and Buddhist Religious Art

Art and architecture have given concrete expression to religious ideas and ideals in South Asia. The course will examine historically both Buddhist and Hindu art and architecture in association with the religious conceptions fundamental to these traditions.

Classes 3 hrs. a week. 1 semester.

338.1(.2) [438.1(.2)] Religion and Art: The West

In what ways may art be religious? Through a rapid thematic survey of the visual arts in Western civilization and an enquiry into the relationship between religious experience and the arts, the student is led to recognize various levels of religiousness in works of art.

Classes 3 hrs. a week. 1 semester.

339.1(.2) [439.1(.2)] Images or Idols?

Prerequisite: completion of a minimum of 5.0 courses at the University.

Telling sacred stories through pictures, sculpture and even architecture is historically both an essential and hotly debated aspect of western religious traditions. Judaism, Christianity and Islam selectively employ such arts. Each distinguishes between sacred and profane images and names unacceptable images "idols". Use of such a term symbolizes one of the most serious issues dividing western and eastern religious traditions. The purpose of this course is to examine the western religious debates about images and the arts with a view to understanding the significance of those debates for comparative religion and the encounter between religious traditions.

Classes and seminar 3 hrs. a week. 1 semester.

340.1(.2) [440.1(.2)] Japanese Religious Traditions

Japan's religious life has its origins in Shinto ritual and myth. Its tradition develops from the Shinto root in comparison with Daoist, Confucian and Buddhist teachings. This comparative history will be examined along with contemporary issues facing religious teachings in Japan.

Classes 3 hrs. a week. 1 semester.

341.1(.2) [441.1(.2)] Political Theology: East and West

Religious traditions both in the east and west have proposed non-violence as a comprehensive ethical response to the problem of violence between nations, in families or among individuals. The course examines how religious traditions have diagnosed the problem of personal and collective violence; arguments for both the control and legitimate use of violence as a means to resolve disagreement; and selected major voices calling for a non-violent religious, social and political ethic.

Classes 3 hrs. a week. 1 semester.

342.1(.2) [442.1(.2)] Religion and War

Religious attitudes toward war have ranged from pacifism, through vigorous efforts to enforce limits on war's destructiveness, to outright support for specific wars. The course will examine comparatively the views of major religious traditions on war; the use of war and the warrior as religious symbols; the crisis of religious views on war in the nuclear age.

Classes 3 hrs. a week. 1 semester.

343.1(.2) [443.1(.2)] Jewish Religious Tradition

The course examines the origin and development of the Jewish faith as it is remembered in the Hebrew scriptures and tradition. Selected contemporary debates in Jewish faith and tradition will be studied.

Classes 3 hrs. a week. 1 semester.

345.1(.2) [445.1(.2)] Chinese Religious Traditions

What did Confucius say? How does a Taoist and a Buddhist conceive of the world and his place in it? How have Chinese religious traditions shaped the character of Chinese culture? These questions

will be examined through the reading in translation of selected Chinese classics such as: Confucius' Analects, Lao Tzu's Tao te Ching, The Buddhist Platform Scripture and selected writings of Chairman Mao.

Classes 3 hrs. a week. 1 semester.

346.1(.2) [446.1(.2)] Religion and the Social Order

Employment opportunities frequently lead university graduates into business, into science and technology, or into careers associated with government — activities which society has traditionally linked to religion only in weak, external ways. In this course, the student is to work out an understanding of the relationship between these specific activities and ultimate human well-being. Two issues are studied: In what ways does religion influence one's attitudes to work? And, how does religion, which preserves society, become for some the force which must overturn the social order?

Classes 3 hrs. a week. 1 semester.

347.1(.2) [447.1(.2)] Ecology and Religion

The course reviews the phenomenon of human ecology in order to advance to further questions: In the human relationship to nature, does nature have rights? To reduce pollution, may the rich deprive the poor of advanced technology? Is a low-consumption life-style desirable in itself? Should we leave development and progress to the experts? Such questions prepare the ground for a theology that finds religious meaning in the worldly realities of science, commerce, and government.

Classes 3 hrs. a week. 1 semester.

351.1(.2) [451.1(.2)] Love

Our culture has represented love, variously, as effecting self-fulfilment, the affirmation of another personality, union with deity, merit for a future life; or, as sex, a passing neurosis, an unreasonable self-annihilation, or a social contrivance. This course explores the assumptions and implications of these views, particularly as they involve ultimate human concerns, that is, religion. The course can be continued into REL 352.2 where a coordinate theme is studied in a similar manner.

Classes 3 hrs. a week. 1 semester.

352.1(.2) [452.1(.2)] Death

The student considers such questions as what dying is really like, whether dying provides a valuable point of view of living, whether people continue in some form of existence after dying, how one is to understand the symbols in religious talk about death, and why mythologies deal so heavily in death.

Classes 3 hrs. a week. 1 semester.

355.1(.2) [455.1(.2)] Religion and Social Issues in Canada

The question of the interaction of religion and society is a key issue for religion because all religion seeks to influence the behavior of its adherents. While some religious groups are content to do so by appeal to persons as individuals, many religious groups often take public stands on public policy, organize pressure groups, or even form political parties. This course will examine the influence of religion on social issues in Canada. Representative personalities and organizations from various religious traditions will be studied.

Classes 3 hrs. a week. 1 semester.

365.1(.2) [465.1(.2)] Cross-listed as ANT 365.1(.2) Myth: Anthropological Approaches**366.1(.2) [466.1(.2)] Cross-listed as ANT 366.1(.2) Worldview: Anthropological Approaches****413.1(.2) Cross-listed as SOC 415.1(.2) New Religious Movements****416.1(.2) Cross-listed as SOC 416.1(.2) Religion in Developing Societies****460.0 Cross-listed as PSY 432.0 Psychology and Religion****480.1(.2) Advanced Seminar in Religious Studies**

The Advanced Seminar will examine selected themes, topics, methodologies and theories in Religious Studies. Normally a major should take this course during Year 4.

Seminar 3 hrs. a week. 1 semester.

490.0-495.0, 496.1(.2)-497.1(.2) Directed Readings in Religious Studies

Prerequisite: permission of Department.

These courses are organized by individual faculty members in agreement with the Department as a whole; they are designed to supplement or provide an alternative to regular courses in Religious Studies according to the special needs and interests of students. Course content can be proposed by the student.

590.0-595.0 Honors Seminars in Religious Studies

Prerequisite: fourth-year honors status and permission of Department.

The three general areas in which the Department offers courses are noted below, together with the courses which fall into each area:

1. Comparative Religion

- | | |
|-----------------------|-----------------------|
| 202.0 | 339.1(.2) [439.1(.2)] |
| 323.1(.2) [423.1(.2)] | 340.1(.2) [440.1(.2)] |
| 325.1(.2) [425.1(.2)] | 341.1(.2) [441.1(.2)] |
| 326.1(.2) [426.1(.2)] | 343.1(.2) [443.1(.2)] |
| 327.1(.2) [427.1(.2)] | 345.1(.2) [445.1(.2)] |
| 337.1(.2) [437.1(.2)] | |

2. Themes in Religious Studies

- | | |
|-----------------------|-----------------------|
| 201.0 | 342.1(.2) [442.1(.2)] |
| 301.1(.2) [401.1(.2)] | 346.1(.2) [446.1(.2)] |
| 302.1(.2) [402.1(.2)] | 347.1(.2) [447.1(.2)] |
| 305.1(.2) [405.1(.2)] | 351.1(.2) [451.1(.2)] |
| 306.1(.2) [406.1(.2)] | 352.1(.2) [452.1(.2)] |
| 307.1(.2) [407.1(.2)] | 355.1(.2) [455.1(.2)] |
| 308.1(.2) [408.1(.2)] | 365.1(.2) [465.1(.2)] |
| 310.1(.2) [410.1(.2)] | 366.1(.2) [466.1(.2)] |
| 316.0 (416.0) | 413.1(.2) |
| 317.0 (417.0) | 460.0 |
| 336.1(.2) [436.1(.2)] | |

3. The Christian Tradition

- | | |
|-----------------------|-----------------------|
| 203.1(.2) | 312.1(.2) [412.1(.2)] |
| 204.1(.2) | 319.1(.2) [419.1(.2)] |
| 303.1(.2) [403.1(.2)] | 328.1(.2) [428.1(.2)] |
| 304.1(.2) [404.1(.2)] | 329.1(.2) [429.1(.2)] |
| 309.0 (409.0) | 334.1(.2) [434.1(.2)] |
| 311.1(.2) [411.1(.2)] | 338.1(.2) [438.1(.2)] |



Sociology (SOC)

Chairperson, Professor
Professors

J. McMullan
L. Christiansen-Ruffman,
P. Connelly, R. Cosper,
S. Halebsky, M. Overington,
H. Veltmeyer

Associate Professors

G. Barrett, R. Hadden,
I. Okraku, D. Perrier

Assistant Professors

S. Bell, G. Kellough,
E. Tastsoglou

Coordinator of Criminology
Certificate Program

S. Bell

Department Statement

SOC 200.0 is the introductory course and is a prerequisite for the majority of 300-level courses.

To major in sociology, a student must obtain at least a grade of C in Introductory Sociology and must complete a core program as follows:

(a) Introductory Sociology (SOC 200.0); (b) Research Design [SOC 364.1(.2)]; Data Analysis [SOC 365.1(.2)]; Classical Sociological Theory [SOC 362.1(.2)]; and Contemporary Sociological Theory [SOC 363.1(.2)] - all of which will normally be taken in the year following Introductory Sociology; (c) the equivalent of three sociology credits (3.0) at the 300 level or above with at least one (1.0) being the equivalent of a full year seminar at the 400 level. Of these requirements, at least one (1.0) must be outside the following sociology courses: 303.0, 315.0, 431.0, 454.0, 455.0, 457.1(.2), and 458.1(.2). The 400-level seminar courses require one credit (1.0) in sociological theory and one credit (1.0) in research methods as a prerequisite since they apply questions of theory and method to the sociological analysis of a specific problem. Those 400-level courses which do not fulfil requirement (c) are noted in the Calendar.

Subject to requirements (a), (b), and (c) above, students in the Criminology Certificate Program may apply all of their criminology credits towards a major in sociology.

To minor in sociology, a student must complete the following courses with a quality point average of at least 2.00: Introductory Sociology (SOC 200.0); either Research Design [SOC 364.1(.2)] and Data Analysis [SOC 365.1(.2)], or Classical Sociological Theory [SOC 362.1(.2)] and Contemporary Sociological Theory [SOC 363.1(.2)]; and two sociology credits (2.0) at the 300 level or above.

There is an honors program in sociology which follows general university requirements. Students must apply for admission no later than 1 February in the year before they wish to begin the honors program and register in the honors seminar course, SOC 530.0. Conditions for admission are (a) a minimum quality point average of 3.00 in sociology courses and a minimum cumulative quality point average of 3.00; and (b) presentation, in writing, of a faculty member's agreement to serve as a supervisor for the research paper required in SOC 530.0. Further information can be obtained from the Department.

Each honors student's program is supervised by the Department but in any case will consist of the following sociology courses:

1. 530.0 (Honors Seminar)
2. a half-credit course (0.5) in theory [from 495.1(.2)-496.1(.2)]
3. a half-credit course (0.5) in methods [from 460.1(.2)-461.1(.2)]
4. three additional credits (3.0) at the 400 level, of which no more than one credit (1.0), except 406.0, may be reading courses. Further information should be obtained from the Department.

Note: All courses are the equivalent of three hours a week each academic year, although specific course schedules are decided by the Department.

Students are urged to check with the Department prior to registration to confirm the Department's offerings.

Requirements for the Criminology Certificate Program are found in the Faculty of Arts portion of Section 3 of this Calendar.

Subject to approval by the Maritime Provinces Higher Education Commission, the Department may also offer a graduate program in sociology/criminology, described in Section 3 of this Calendar.

200.0 Introductory Sociology

An introductory study of sociological perspectives and concepts, human interaction and organization in society, particularly in modern Canadian society; relationship between sociological theory and research; analysis of major social institutions, e.g., familial, religious, educational, economic and political.

202.1(.2) Interpersonal Relations

Prerequisite: SOC 200.0 and permission of Coordinator of Criminology Certificate Program.

This course will cover some of the fundamental problems of interpersonal relations involved in the criminal justice system. Aspects of communication, self-awareness, perception, helping behaviors, group dynamics, leadership styles and problem solving will be analyzed within this institutional context on the basis of various sociological perspectives as well as communication theory. Students will have an opportunity to test their knowledge and skills in structured exercises.

203.1(.2) Introduction to Criminal Law

Prerequisite: SOC 200.0 and permission of Coordinator of Criminology Certificate Program.

This course intends to familiarize the student with Canadian criminal law. The course will focus on topics such as definition of law, history of our criminal code, its elements and role in a democratic society, exemption from criminal responsibility, principles of evidence, and its administration and enforcement.

302.0 Social Problems

Prerequisite: SOC 200.0.

Major social problems affecting Canadians will be analyzed. These range from alcohol use and sexual behavior to poverty and mental health. The part played by interest groups and social movements in defining and reacting to these problems will be a focus of the course.

303.0 Criminology

Prerequisite: SOC 200.0 or registration in the Criminology Certificate Program.

An analysis of criminal deviance which examines theories of its genesis, social definition, maintenance, control, and social consequences. The course is intended to give students an opportunity to examine major theoretical and methodological issues in the study of crime and crime control.

304.0 Deviance

Prerequisite: SOC 200.0.

This course attempts to explain how social disrepute can be attached to acts which deviants themselves might consider to be innocent or vicious. The course will establish that the method of defining deviance is essential for considering what types of deviants exist, how they might be enumerated, what life experiences they will enjoy or suffer, and how their behavior can be explained.

306.0 Sociology of Education

[EDU 507.0]

Prerequisite: SOC 200.0 or enrollment in Education.

A study of major sociological approaches (both conceptual and methodological) to education in different societies, with special emphasis on Canadian society. The course will focus on topics such as relationship between family, education and society; education and inequality; the social organization of knowledge; education and social change; the politics of education.

307.0 Crime and the Criminal Justice System

Prerequisite: SOC 200.0 and 204.1(.2) or registration in the Criminology Certificate Program.

An examination of the concept of crime and of the process of the criminal justice system in Canada. The role, powers, and discretion of the various actors in the system are examined.

308.0 Urban Sociology

Prerequisite: SOC 200.0.

An analysis of different ways in which sociologists approach the city; the historical and comparative approach, human ecology, urban and suburban interaction, informal urban social structures, community and power structure.

310.1(.2) Society and the Environment

Prerequisite: SOC 200.0.

This course will be an examination of selected Nova Scotia environmental issues; acid rain, forestry/wildlife, toxic wastes, and uranium exploration and mining, from an ecological perspective. The class will address the basic question: can environmental problems be resolved within our society? Students will be expected to analyze critically the perspectives of the provincial and federal governments, industry and environmental organizations.

311.1(.2) Population

Prerequisite: SOC 200.0.

An introductory course in demography and population studies designed to acquaint the student with the basic materials and techniques of demographic analysis, and to explore the interrelationships of demographic phenomena and various aspects of social structure. Topics include population size, composition, and distribution; and the dynamics of demographic change, i.e., fertility, mortality and migration. Particular attention is given to current population issues and problems in both developed (especially Canada) and developing nations.

313.0 Sociology of Kinship and Family

Prerequisite: SOC 200.0.

Cross-cultural analysis of family and changing family patterns, relationship between family and other institutions, male and female roles and patterns of interaction at each stage of family life-cycles.

315.0 Corrections

Prerequisite: SOC 200.0 or registration in the Criminology Certificate Program.

This course presents an historical/comparative framework for an analysis of corrections in the criminal justice system. Students will examine contemporary issues related to treatment, reintegration, structure, and reform with an emphasis on issues relevant to age, gender, and race.

317.0 Sociology of Religion**[REL 317.0 (417.0)]**

Prerequisite: SOC 200.0 or a course in religious studies.

In its study of the relationship between religion and society, this course examines the continuities between classical contributions of sociologists such as Durkheim, Marx and Weber, and contemporary theories and issues. Attention is focused on religious movements in Canada and other countries.

319.0 Reform and Revolution in Latin America

Prerequisite: SOC 200.0 or permission of instructor.

This course examines the conditions and social structure that underlie movements toward reform and revolution in Latin America. Major political and social trends on the continent will be explored in terms of various themes such as the role of the church, the military, United States intervention, aid and trade, land tenure and the multinational corporations. Special case studies will include revolutions in Mexico, Cuba and Nicaragua; and Chile under Allende and Pinochet.

320.0 Women In Canadian Society**[WMS 320.0]**

Prerequisite: SOC 200.0.

The analysis of the structural and cultural conditions which have determined the position of women at various stages in Canada's development, with particular emphasis on Atlantic Canada. The process of sex-related socialization will be considered as well as the consequences of sexual differentiation on the familial, education, occupations, legal and political status of women. This course may be taken in conjunction with the Atlantic Canada Studies Program; in conjunction with a concentration in sociology; as a social science elective.

321.0 Canadian Society

Prerequisite: SOC 200.0 or a course in economics.

A political economy perspective on the conditions created by the regional and class structure of Canadian society. Emphasis is placed on problems of regional development, the role of business, and the corporate structure of the Canadian economy. Among the major problems to be considered are the relationship between Atlantic Canada and Central Canada, the Quebec question, native peoples and northern development, corporate concentration and the impact of foreign investment.

322.0 Political Sociology

Prerequisite: SOC 200.0 or a course in political science.

Prevailing theories of radical or dissident behavior will be assessed critically and alternate emerging approaches suggested. Protest and radical movements in Europe, Latin America and elsewhere will be considered.

323.0 The Individual and Society

Prerequisite: SOC 200.0.

This is a general course which will explore a variety of issues that characterize sociological investigations of individual persons in their social settings. Attention will be given to the institutional contexts of individuality - families, work, leisure, and so on - to the public and private realms of social life and to the meanings which people construct with each other in their social worlds.

324.0 Social Stratification

Prerequisite: SOC 200.0.

An analysis of the main features of social inequality in modern industrial societies; distribution of power and wealth, existence of power elites or governing classes, comparative community power structures, institutionalization of class conflict, problems of social mobility, political expression of class and status groups.

325.1(.2) Bureaucracies

Prerequisite: SOC 200.0.

We shall examine the ways in which we can understand large corporate and government organizations as social tools. We shall emphasize their use to achieve the purposes of both those who run them and those who work in them.

326.1(.2) People in Bureaucracy

Prerequisite: SOC 200.0.

This course complements SOC 314.1(.2) by offering a sociological account of human relationships in bureaucratic contexts. Particular attention will be given to the possibilities for a limits on human action that organizational situations present.

327.0 Social Policy

Prerequisite: SOC 200.0.

This course analyzes the process by which public policies are formulated, the influence of particular social groups (politicians, bureaucrats, professionals, citizen interest groups) during the policy formulation process, the social implications of public policies and the nature and purpose of social policy research. The lectures focus on policy-making as it affects Atlantic Canada and each student specializes in a policy area of his or her choice (e.g., welfare, education, rural or northern development, energy, employment, health planning, defence, etc.).

328.1(.2) Social Gerontology

Prerequisite: SOC 200.0 or permission of instructor.

An overview of the manner in which society and older people interact. The course examines such topics as social participation and adjustment, economic situations, problems of the elderly, policies and services designed to assist the elderly.

Note: SOC 328.1(.2), 329.1(.2), 330.1(.2), and 331.1(.2) replace a former course, SOC 312.0. Students who have received credit for SOC 312.0 may not enroll in this course.

329.1(.2) The Family in Later Life

Prerequisite: SOC 200.0 or permission of instructor.

An examination of the relationships between the older person and the family. Topics studied include intergenerational relations, grandparent roles, marital status, sexual relationships, problems presented by dependent older people, and family support. Older women and widowhood will receive special attention. Cross-national and cross-cultural comparisons will be undertaken.

Note: SOC 328.1(.2), 329.1(.2), 330.1(.2), and 331.1(.2) replace a former course, SOC 312.0. Students who have received credit for SOC 312.0 may not enroll in this course.

330.1(.2) Sociology of Retirement

Prerequisite: SOC 200.0 or permission of instructor.

The course examines various aspects of retirement from a sociological perspective. The topics covered include historical emergence of retirement, retirement policies and pension schemes, problems of individual adjustment to retirement. International comparisons will be presented.

Note: SOC 328.1(.2), 329.1(.2), 330.1(.2), and 331.1(.2) replace a former course, SOC 312.0. Students who have received credit for SOC 312.0 may not enroll in this course.

331.1(.2) Modernization and Aging

Prerequisite: SOC 200.0 or permission of instructor.

An exploration of the relationships between patterns of aging and status of the elderly and societal development and modernization. Sociological perspectives and research dealing with changes in age roles, attitudes towards the elderly, family supports, services and programs for the elderly will be examined. Examples will be drawn from pre-industrial societies, as well as today's developed and developing nations.

Note: SOC 328.1(.2), 329.1(.2), 330.1(.2), and 331.1(.2) replace a former course, SOC 312.0. Students who have received credit for SOC 312.0 may not enroll in this course.

332.0 Sociology of Atlantic Canada

This course is designed to introduce students to the sociological study of Atlantic Canada, that is to the development and structure of its major institutions and social groups. The focus in the first term is on the dimensions of settlement, the development of class, industrialism, under-development and social movements. In the second term the course focuses on the contemporary structure of uneven development with particular emphasis on the organization of capital, labor, and the state in the resource sector - the fishery, agriculture, forestry and mining. Current issues and themes such as resettlement, multinational corporations, elites, marginality and unemployment, community dependence, intermediate technology, the state, and oil and gas are some subjects dealt with in this context.

333.0 Social Movements

Prerequisite: SOC 200.0.

Analysis of the origin and development of social movements and their role in social change. The political and sociological sources of social movements will be stressed, as well as their institutional and ideological transformations. The course will have a comparative focus, with attention to Canadian social movements in this century. Social gospel, agrarian socialism, trade unionism, social credit, cooperatives, and nationalism will be examined as diverse expressions of Canadian social life.

336.1(.2) Work and Occupations in Contemporary Society

Prerequisite: SOC 200.0.

This course presents an overview of the work of sociologists on occupations. Occupations are studied as an important role in contemporary society. The professionalization of occupations is treated as are other changes in occupational structure and work conditions. The question of how people select or are selected for occupations is discussed. Other topics analyzed are occupations and culture, learning work roles, identification with occupations, career patterns, change in occupational structure, work setting, occupational ideologies, and influences of occupational roles on other aspects of life.

337.1(.2) Leisure in Contemporary Society

Prerequisite: SOC 200.0.

In this course, leisure is seen as the converse of work in industrial society. Leisure is analyzed in relation to social structural features, such as social class and occupation. The course examines the social organization of such leisure activities as social interaction with family and friends; voluntary associations, varieties of play including sports, pastimes, hobbies, games and holiday travel; participation in expressive culture; use of mass media, the arts and entertainment.

338.1(.2) Language Change and Social Change

Prerequisite: SOC 200.0 or permission of instructor.

This course consists of a systematic overview of historical linguistics in the context of social change. Specifically, the course covers the principles and processes of language change, and their relationship to aspects of social change, such as migration, language contact, technological change, and changing social structure. Students have the opportunity to discover elements of change in Indo-European and other languages by carrying out actual exercises.

339.1(.2) The Sociology of Language

Prerequisite: SOC 200.0 or permission of instructor.

This course provides an introduction to the major areas of the sociology of language. Special attention is paid to language and social relations in Canada, particularly to the present-day situation.

Standard topics in the sociology of language are treated, including language and social interaction; the use of language by social classes, men and women, ethnic groups and regions; dialects and social groups, bilingualism and multilingualism; language and nationalism; language maintenance and language shift; and language planning.

340.0 Ethnic and Minority Groups

Prerequisite: SOC 200.0 or a course in anthropology.

An analysis of racial, ethnic, and minority group structure and of intergroup processes in different societies, with special emphasis given to the Canadian society.

342.1(.2) Social Interaction

Prerequisite: SOC 200.0 or a course in anthropology or psychology.

An investigation of the social world through an examination of the nature and variety of human relationships. In personal terms, we shall struggle to understand our own places in the network of groups that make up society.

343.1(.2) Society as Drama

Prerequisite: SOC 200.0 or a course in anthropology or psychology.

An effort to present a dramaturgical perspective on society is made. The scope and limits of this approach are explored and students introduced to its application through observational exercises. If "all the world's a stage", what's the play about?

344.0 Asylums, Prisons, and Other Total Institutions

Prerequisite: SOC 200.0.

The focus of this course is on institutional methods for the management and treatment of people classified as criminal or mentally ill and the consequences that these methods have for people who are institutionalized. It outlines the historical development of prisons and mental hospitals during the 19th century and before, and examines recent sociological studies of imprisonment and mental hospitalization. Attention will also be given to autobiographical accounts of ex-prisoners and mental patients and to the professor's own study of women's experiences in Canadian prisons. Finally, critiques of institutional methods for dealing with the criminal and the mentally ill will be discussed.

350.1(.2)-351.1(.2) Contemporary Issues in Sociology

Prerequisite: SOC 200.0.

The course will provide an opportunity for students to study contemporary substantive issues in considerable depth and detail.

352.1(.2) The Mass Media

Prerequisite: SOC 200.0.

This course examines several of the major questions that have animated sociologists of the mass media and communication. In particular, it tackles the questions of "ideology" and political "bias" in the media's presentation of the world, and how to construct a fruitful theoretical approach to the modern media within the context of the development of capitalist society.

353.1(.2) Industry and Labor in Contemporary Society

Prerequisite: SOC 200.0.

This course will examine industry and labor in the context of change in the economy since the early 1970s. Some of the themes addressed are: the internationalization of capital and the new international division of labor; technological change and its effect on patterns of work and levels of employment; and the role of the state in contemporary society. In the context of these broader themes, specific issues such as the relocation and restructuring of industry by the advanced industrial economies, changes in the labor process, unemployment and underemployment, part time work, the labor force participation of women, unemployment insurance, workers compensation, and the role of trade unions will be examined.

362.1(.2) Classical Sociological Theory

Prerequisite: SOC 200.0.

A critical examination of the major themes of social analysis in the 19th century, with particular emphasis on the classical tradition exemplified by the writings of Karl Marx, Emile Durkheim and Max Weber.

Note: The two half-credit courses, SOC 362.1(.2) and 363.1(.2), replace a former course, SOC 301.0. Students cannot receive a credit for both the full-credit course and either/or both half-credit courses.

363.1.(2) Contemporary Sociological Theory

Prerequisite: SOC 200.0.

A critical examination of the major themes of social analysis in the 20th century, with particular emphasis on current theoretical issues and differences in theoretical approaches to problems in sociological analysis.

Note: The two half courses, SOC 362.1.(2) and 363.1.(2), replace a former course, SOC 301.0. Students cannot receive a credit for both the full course and either/or both half courses.

364.1.(2) Research Design

Prerequisite: SOC 200.0.

This course examines the place of research in sociology and the relationship of sociology to science. It examines concepts, measurement, research designs, and techniques of data collection. The course introduces students to a variety of approaches to research and data collection and emphasizes that methods of research are closely related to theory, the nature of research questions and design considerations.

Note: The two half courses, SOC 364.1.(2) and 365.1.(2) replace a former course, SOC 300.0. Students cannot receive a credit for both the full course and either/or both half courses.

365.1.(2) Data Analysis

Prerequisite: SOC 200.0 and 364.1.(2).

This course, which is a sequel to SOC 364.1.(2), covers the analysis of data and report writing. Analysis of a variety of types of data is considered, and statistics and quantitative methods are introduced. The course includes a number of exercises in analysis and report writing structured to introduce the student progressively to the means by which sociologists draw conclusions from observations.

Note: The two half courses, SOC 364.1.(2) and 365.1.(2) replace a former course, SOC 300.0. Students cannot receive a credit for both the full course and either/or both half courses.

371.1.(2) Evaluating Social Programs

Prerequisite: SOC 364.1.(2) and 365.1.(2) or permission of instructor.

This course is intended to provide an introduction to program evaluation for the social scientist. The material to be covered will include an examination of the evaluation process, data collection, design and implementation, analytical techniques and report preparation - particularly useful for the student interested in the practical application of research methodologies.

372.1.(2) Social Impact Analysis

Prerequisite: SOC 364.1.(2) and 365.1.(2) or permission of instructor.

This course is designed to provide the student with an introduction to social impact analysis, in particular the effect of large scale development projects on society. As such it covers the design of analytical frameworks, the application of appropriate research methodologies and the development of social impact models.

380.0 Third World Urbanization

Prerequisite: SOC 200.0.

A survey of the major properties of urbanization in the developing nations. Topics to be covered include processes of urban growth, urbanization and underdevelopment, and urban migration, as well as urban life, poverty, housing settlements, and social policies, among other subjects.

385.1.(2) Problems of Development

[IDS 485.1.(2)]

Prerequisite: SOC 200.0 or a course in economics or political science.

This course will provide an introduction into concepts and theories of development and underdevelopment with particular reference to problems of Third World societies. The main emphasis will be on the various theories advanced in explanation of the historical development of less developed societies and their position in a growing global economy. The major lines of research associated with these theories will also be reviewed.

Note: The two half courses, SOC 385.1.(2) and 386.1.(2) replace a former course, SOC 305.0. Students cannot receive a credit for both the full course and either/or both half courses.

386.1.(2) Sociology of Developing Societies

[IDS 386.1.(2)]

Prerequisite: SOC 200.0 or a course in economics or political science.

This course examines the conditions of economic and social development in the Third World. The role of colonial empires in the creation of these conditions and of the world system in maintaining them will be scrutinized. Problems discussed will include trade relations, foreign aid, land distribution, industrialization, class structures, the role of the estate, and the position of women. Illustrative case studies on these problems will range across different countries in the Third World (Africa, Latin America and Asia).

Note: The two half courses, SOC 385.1.(2) and 386.1.(2) replace a former course, SOC 305.0. Students cannot receive a credit for both the full course and either/or both half courses.

387.1.(2) Women and Development

[WMS 387.1.(2)]

Prerequisite: SOC 200.0 or IDS 300.0.

This course will examine the role of women in development. It will examine the changing structure of the division of labor by gender in different international, regional and community contexts, and the interaction between the economics and politics of class and gender in different societies at different levels of development. This course will also address issues such as: the incorporation of subsistence economies into modern market economies; the establishment of labor-intensive multinational industries, particularly those drawing on female labor; the relationship between the household and the formal and informal economies and patterns of female migration; and the role of women in the transition from rural to urban/industrial worlds.

388.1.(2)-389.1.(2) Selected Issues in Criminology

Prerequisite: SOC 200.0 and permission of Coordinator of Criminology Certificate Program.

These courses are designed to enable a student to examine a particular criminological issue in detail.

390.1.(2) Gender, Race and Justice

Prerequisite: SOC 200.0 and permission of Coordinator of Criminology Certificate Program.

This course is concerned with the relevance of race and gender to contemporary justice issues and the administration of the criminal justice system.

391.0 Rural Sociology

Prerequisite: SOC 200.0.

This course is concerned with the comparative study of agrarian and maritime societies. The following issues will be examined in this context: class structures, models of development, agribusiness, the 'green' and 'blue' revolution in Third World agriculture and the fisheries, movements among rural workers and peasants.

400.1.(2) Fisheries Development in the West

Prerequisite: SOC 362.1.(2), 363.1.(2), 364.1.(2), and 365.1.(2); or permission of instructor.

This course explores in detail issues related to fisheries development in Western countries. Three themes are explored in the course: artisanal or near shore fishing systems (territoriality fishing, communities and so on), and state management (theory and policy, regulation, and policing). Comparative material is drawn from countries around the North Atlantic Rim, the United States, Australia, New Zealand and Japan.

401.1.(2) Fisheries Development in the Third World

Prerequisite: SOC 362.1.(2), 363.1.(2), 364.1.(2), and 365.1.(2); or permission of instructor.

This course explores in detail issues related to Third World fisheries development. Property rights, resource tenure and indigenous knowledge systems characteristic of traditional artisanal systems are discussed. A second theme explores modern efforts by developing states to manage and develop commercial fisheries, technological change, aquaculture and industrialisation. Comparative case material is drawn from Brazil, the Caribbean, Africa, India and South-East Asia.

403.0 Revolution and Change: A Case Study - Cuba

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

The seminar will study efforts at far-reaching and radical social, political, and economic change in 20th century societies, as exemplified by Cuba since 1960. Approaches, difficulties, and successes are examined and some cross-cultural comparisons will be made.

405.0 Sociology of Labor

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This course will analyze the changes in the occupations and industrial structure of Canadian society and the effects of these changes on the working population. Major themes of the course are the evolution of labor processes within occupations, the shifts of labor among occupations, the increasing labor force participation of women, the role of trade unions, the underemployment and unemployment of Canadian workers.

406.0 Directed Reading In Sociology

Prerequisite: honors standing.

This course provides an opportunity for honors students to read in depth in an area of sociology not normally covered by regular Departmental course offerings. Students are expected to demonstrate initiative and independence.

Note: This course does not constitute a 400-level seminar in fulfillment of requirement (c) for majors.

407.0-408.0 and 409.1(.2)-410.1(.2) Directed Readings in Sociology

[WMS 407.0-408.0 and 409.1(.2)-410.1(.2)]

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

These courses provide an opportunity for students to read in depth in an area of sociology not normally covered by regular Departmental course offerings. Students are expected to demonstrate some initiative and independence.

Note: These courses do not constitute a 400-level seminar in fulfillment of requirement (c) for majors.

412.0 Sociological Perspectives on Aging

Prerequisite: SOC 328.1(.2), 362.1(.2), 363.1(.2), 364.1(.2), 365.1(.2); or permission of instructor.

This seminar course is designed as an in-depth study of theoretical and methodological issues in sociological studies of aging. Major sociological perspectives and theories in aging are explored. Research applications of the theories in selected substantive subject areas are also presented.

413.0 Sociology of Identity

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This is an advanced course which will explore methodological, theoretical and substantive issues in a sociological approach to social identities. In particular, we shall examine some of the ways in which the form and character of the link between persons and social institutions has been understood in order to enhance our own appreciation of this fundamental problem in the social sciences.

414.0 Sociology of Knowledge and Science

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This seminar will examine science as the preferred ideology of scientists. We shall seek to account for scientific knowledge as the subtle product of a community of intellectual authorities. We shall pay attention to various efforts among social scientists to understand the importance we all attach to scientific knowledge, without yielding to claims that this results from its particular insights into "reality". As social scientists we have a special obligation to bring this inquiry to bear on our own knowledge. To do this we shall examine how "theory" and "methods" in sociology are employed as persuasive reasons for creating an orderly body of scientific literature out of the chaotic human world in which research takes place.

415.1(.2) New Religious Movements

[REL 413.1(.2)]

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This course explores theoretical and methodological approaches which explain and analyze the emergence, recruitment, success and failure of new religious movements in society. Case studies of specific movements will be examined.

416.1(.2) Religion In Developing Societies

[REL 416.1(.2)]

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This course examines religious movements as both product and active agent of special processes in developing societies such as Latin America and India. There will be special focus on the relationship between religious movements and the position of women in developing societies.

420.0 Comparative Regional Development

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This course will examine sociological models and theories of economic development and apply them to a number of regional problems based on the social organization of economic production. Analysis will focus on various regional formations of the world capitalist system, with a case study approach to problems of Atlantic Canada. Such problems will include the sociology of rural decline, urban development, industrialization, single-industry dependence, industrial location, disparities of jobs and income, etc.

422.1(.2) Gender and Development: Theory and Method

[IDS 422.1(.2)/622.1(.2); WMS 422.1(.2)]

Prerequisite: SOC 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This course will examine the role of women and development in the Third World. It will discuss the interrelationship of various development and feminist theories; methodological approaches to the study of women and development will also be examined. This course will provide students with a conceptual overview and practical tools for understanding the problems faced by women in developing countries.

423.1(.2) Gender and Development: Policy Issues

[IDS 423.1(.2)/623.1(.2); WMS 423.1(.2)]

Prerequisite: SOC 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This course will examine case studies of the role of women in the development process in various Third World countries. It will provide an analysis of the gender dimensions of programs and policies that affect women in different international, regional and community contexts. Case studies will focus on a number of specific issues such as work, education, health and empowerment. These will vary from year to year.

425.0 Corporate Power and the World Economy

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This course will analyze the structure of economic and political power from a sociological perspective. Units of this analysis are the corporations that dominate the world capitalist system and the Canadian economy. Both theoretical and methodological issues of corporate research will be explored in some depth.

430.0 The Sociology of Alcohol Use

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This course is a seminar on the beverage use of alcohol in North America, the accompanying social problems, and society's efforts to solve these problems. Students investigate alcohol use from a variety of theoretical perspectives and are exposed to several major methods of research. Particular topics studied include taverns, the temperance movement, and drinking by youth, vagrants and ethnic groups. Students also do an original research paper on some topic related to alcohol use.

431.0 Law in Society

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

An in-depth study of the relationship between law and society. This course will examine law as a product of a social system and as an instrument of social change. Emphasis will also be placed on the social forces affecting judicial behavior and the determinants and purposes of legislation as the link between values and interests. Attention will also be directed to law as a profession, and jurisprudence as an evolving discipline with special emphasis on issues in the administration of justice.

432.1(2) Gender and Law

[WMS 432.1(2)]

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

By providing an examination of the gendered nature of conventional understandings of law, social control and deviance, this course will identify and challenge the ideology of sameness that has pervaded male-stream legal theory. It will also consider the implication of these gendered assumptions for the reproduction of inequality. Specific issues concerning the impact of law on women's lives will be explored in order to illustrate the relation between law, gender and power.

440.0 Selected Studies In Sociological Analysis

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

An upper level course which examines selected methods of analysis in sociology. The specific methods and the range of problems to which they are applied will vary with the instructor's areas of specialized interest and expertise.

447.1(2) Work and the Empowerment of Women in India

[IDS 547.1(2); WMS 447.1(2)]

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

The objective of this course is to study women and work in rural and urban context of three regions of India: North India, Maharashtra and South India. The course adopts a dynamic approach to studying the processes involved in the subordination of Indian women and ways of empowering women in India.

448.0 Feminist Analysis: Field Research on Women and Men

[WMS 448.0]

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

This seminar focuses on problems of studying women, including sex bias in research. It also provides insights from feminist methodology.

450.0 Selected Topic

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

A seminar course which examines questions within an area of specialization and enables a student to study a particular sociological issue in detail.

453.0 Citizen Participation in Community Planning

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

This course will focus on citizen participation in community planning. It will combine the reading and discussion of sociological works with an examination of case studies in citizen participation. These case studies will be supported by and based on first hand research in the Halifax/Dartmouth area and/or elsewhere in Atlantic Canada during the year. In these projects, seminar members will work independently and/or cooperatively on a series of agreed upon problems. Major topics involve historical and current perspectives on the issues in citizen participation.

454.0 Young Offenders and the Juvenile Justice System

Prerequisite: SOC 200.0, 362.1(2)/363.1(2), and 364.1(2)/365.1(2); or permission of instructor.

Beginning with an examination of the origin of delinquent behavior and juvenile justice systems in Western society, this course will progress to an examination of the relationship between juvenile crime, juvenile justice, and the Canadian state. The objective of the course is to familiarize the student with theories of delinquency and contemporary Canadian issues related to delinquent behavior and juvenile justice.

455.0 Penology

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

A seminar which examines selected topics within an area of specialization and enables a student to study a particular sociological problem in detail. This course traces the history of penal methods and the development of contemporary corrections. The Canadian correctional apparatus is examined in relation to current issues and proposals. Correctional methods, problems, and efficacy are considered in some detail, in institutional programs, and in community programs. Correctional processes as these related to typologies of offenders, and special problems of female, youthful, and persistent offenders will be examined.

457.1(2) Critical Criminology

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

A critical examination of traditional criminological theory and of conventional approaches to the problems of deviance, crime, and social control. Examination of the relationships between crime, law, class and power. Consideration of the relation of crime to surplus and marginal populations, social crime and the politicization of deviance, criminalization as a mode of control, and implications for a radical criminal policy.

458.1(2) Comparative and Historical Criminology

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2), and 365.1(2); or permission of instructor.

This course will examine the literature dealing with the nature of deviance and crime and with the master patterns of social control in past societies. In particular, it will focus on the criminal law, punishment, policing, institutionalization of deviance, new forms of social discipline, poverty, class and images of criminality, and sexuality, patriarchy and the family.

460.1(2) Quantitative Methodology

Prerequisite: SOC 364.1(2) and 365.1(2).

Advanced level course in analysis of quantitative data in sociology. Topics covered include: the concept of association between variables, measures of association, multivariate analyses, regression techniques, inferential statistics and the research report.

461.1(2) Survey Analysis

Prerequisite: SOC 364.1(2) and 365.1(2).

The course is designed to introduce students to the analysis of survey data and to the use of SPSS computer programs. Topics covered include editing and coding of survey data, univariate analysis including such procedures as graphic presentation of data, measures of central tendency and variability, normal distribution, bivariate table, and scale construction.

468.1(2) Women's Organizations and Change

[WMS 468.1(2)]

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2) and 365.1(2); or a minimum of 3.0 courses in WMS; or permission of instructor.

This course describes women's organizations and social change, using a comparative perspective grounded in the local communities of Atlantic Canada and in the international arena. In working collectively for social justice and social change, how have women organized? What organizational forms have they used? How have they related to the larger society? What organizational strategies have been most successful in improving the position of women? These are some questions that will be discussed in analyzing the interrelationships between the actions of individuals, the activities of groups and the structures of communities, institutions, and nation-states.

480.0 Ethnicity and the Canadian State

Prerequisite: SOC 362.1(2), 363.1(2), 364.1(2) and 365.1(2); or permission of instructor.

This course will explore the interplay of power, politics and ethnicity within Canadian society, focusing on the impact of state practices and policies upon ethnic relations. The objective is twofold: first to understand the "social construction" of race and ethnicity through state practices, and second to comprehend the role of state practices, policies and structures in determining who will and will not exercise political power and influence, and how the exercise of power shapes ethnic consciousness and ethnic relations.

493.1(.2) [593.1(.2)] Advanced Research Methods

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

This is a course in advanced qualitative research methods. From time to time, depending on student interest and faculty availability, this course will treat issues raised in historical, comparative, observational and other methods, as well as general questions in research design and analysis.

Note: These courses do not constitute a 400-level seminar in fulfillment of requirement (c) for majors.

495.1(.2)-496.1(.2) [595.1(.2)-596.1(.2)] Advanced Sociological Theory

Prerequisite: SOC 362.1(.2), 363.1(.2), 364.1(.2), and 365.1(.2); or permission of instructor.

Presentation of various topics of interest to advanced students. From time to time, depending on student interest and faculty availability, this course will consider particular theorists and such matters as constructing social theories, traditions of theoretical writing, and new directions and problems in the field.

509.1(.2) Directed Reading: Advanced Studies in Sociology

Prerequisite: one of SOC 407.0 to 410.1(.2) and permission of instructor.

This course allows students to pursue a sub-area of sociology in considerable depth. Students are expected to demonstrate considerable initiative and independence.

Note: This course does not constitute a 400-level seminar in fulfillment of requirement (c) for majors.

530.0 Honors Seminar

Prerequisite: enrollment in honors program.

The purpose of this seminar is to help students prepare a major research paper on a topic agreeable to both the student and the Department.

601.0 Social Justice and Social Change

Prerequisite: admission to Master of Arts in sociology and criminology program.

This seminar is designed to analyze major contemporary issues of social justice and social change within Canada. The seminar will also focus on the use of sociological research and analysis in the design and delivery of social programs as well as on issues facing students and faculty in designing and implementing sociological research.

602.1(.2)-604.1(.2) Research Methods

Prerequisite: SOC 364.1(.2) and 365.1(.2); and either SOC 460.1(.2) or 461.1(.2).

These courses will focus on specified sociological research methods of particular interest to students in criminology and social development.

608.1(.2)-609.1(.2) Directed Readings

Prerequisite: enrollment in the graduate program.

These courses allow students to pursue a sub-area of sociology at the graduate level. Students are expected to demonstrate considerable analytic sophistication and a capacity for independent thought.

610.0, 611.1(.2)-612.1(.2) Advanced Topics in Criminology

Prerequisite: undergraduate degree with a major or honors in sociology.

These seminar courses are designed to cover selected topics in criminology at an advanced level. Topics examined may include historical criminology, law and social control, women and crime, penology, victimology, media and crime, organized crime, crime and social policy.

613.1(.2) Criminological Theory

Prerequisite: SOC 303.0, 362.1(.2), and 363.1(.2).

This seminar course examines contributions made by sociological theory in contemporary criminology. The course will emphasize major contemporary theoretical issues and debates. It is assumed that students have already acquired a basic background in the elements of criminological theory as part of their undergraduate degree training.

620.0, 621.1(.2)-622.1(.2) Advanced Topics in Social Development

Prerequisite: enrollment in the graduate program.

These seminar courses are designed to cover selected topics in social development at an advanced level. Topics examined may include social policy and change; gender, ethnicity, race and class in social development policies; issues such as housing, alcohol abuse, aging and violence.

623.1(.2) Theories of Social Development

Prerequisite: SOC 362.1(.2) and 363.1(.2).

This seminar course will review the current state of sociological theory in the field and critically analyze and evaluate the major theoretical issues. It is assumed that students have already acquired the basic background in the elements of social policy and development theory as part of their undergraduate training.

630.0 Thesis Research

Prerequisite: enrollment in the graduate program.

In this course the students design and implement their M.A. thesis on a topic agreeable to both the student and the Department. The thesis is expected to show both originality and the analytical/critical skills of research and interpretation.

Women's Studies (WMS)

Committee on Women's Studies

G. Thomas, Coordinator	English
S. Bell	Sociology
J. Cauville	French
L. Christiansen-Ruffman	Sociology
P. Connelly	Sociology
S. Crooks	Philosophy
P. Fitzgerald	Management
K. Flikeid	French
M. Harry	English
T. Hubel	English
W. Katz	English
G. Kellough	Sociology
U. Kelly	Education
S. Kindred	Philosophy
M. MacDonald	Economics
H. McGee	Anthropology
G. Pretty	Psychology
M. Royal	Political Science
G. Thomas	Classics
E. Tastsoglou	Sociology
S. Walter	Anthropology

The Saint Mary's Women's Studies program is designed to facilitate co-operation with other universities in the Halifax area. The program offers an interdisciplinary Bachelor of Arts degree in Women's Studies as well as a minor in Women's Studies for students majoring in other disciplines.

Courses in Women's Studies lead to a fuller understanding of women's lives, culture, ways of knowing, struggles for social justice and change, and feminist theories and methodologies. Students in the program learn about the forms and structures of discrimination that prevent women from participating equally in society. They learn how many of the personal problems that confront women are generated by society rather than being particular to the individual. They study the process by which women's issues become public and lead to social change.

Women's Studies programs and departments have now become established throughout Canada and internationally. They are widely recognized as playing an important role in broadening our definition of knowledge and helping amend the bias and narrowness of many disciplines and courses.

Governments and large institutions are now acknowledging the need to work towards sexual equality; consequently graduates who can demonstrate their expertise in this area can expect opportunities to find practical uses for their knowledge.

Requirements for a Major

- Students must complete six credits (6.0) in Women's Studies. Normally they will accomplish this by taking the following courses:
 - WMS 100.1(.2)
 - WMS 420.1(.2) and 421.1(.2)
 - the equivalent of one credit (1.0) with a clear focus on feminist theory, feminist methodology, and/or feminist analysis [e.g., such courses as WMS 448.0 (from Saint Mary's); WOM 210 A/B, 310 A/B, 311 A/B (from Mount Saint Vincent); or WOST 3500 A/B (from Dalhousie)].
 - three and one half additional WMS credits (3.5) offered by Saint Mary's, Mount Saint Vincent, and Dalhousie Universities. Courses from the latter two institutions are subject to the established Saint Mary's regulations governing transfer credits and will be processed through the Letter of Permission system.
- All courses for the major must be approved by the Coordinator of the WMS program at Saint Mary's.
- Students must satisfy all the requirements for a major in the Faculty of Arts as delineated in Section 3 of this Calendar.

Requirements for a Minor

Students must complete four credits (4.0), including either WMS 420.1(.2) and 421.1(.2) or one credit (1.0) as described in regulation 1-c, for a major in WMS.

100.1(.2) Focus on Women

This course presents a variety of perspectives on the role, function, and expression of women. It focuses on women using a variety of disciplines in both the humanities (e.g., classics, English, history, linguistics, and religious studies) and the social sciences (e.g., anthropology, economics, political science, and sociology).

201.0 Cross-listed as ANT 201.0 Women: A Cultural Perspective

305.1(.2) Cross-listed as REL 305.1(.2) [405.1(.2)] Women In Christian Scripture and Tradition

311.1(.2)-312.1(.2) and 313.0-315.0 Special Topics In Women's Studies

Prerequisite: at least 1.0 credit in WMS.

These are combined lecture-seminar courses on a selected topic in Women's Studies. Course content will vary from year to year. These courses allow students to take advantage of offerings in other departments relevant to a Women's Studies degree.

317.0 Cross-listed as EGL 317.0 Writing by Women

Prerequisite for WMS 317.0: at least 1.0 credit in English or permission of instructor.

318.0 Language and Gender [EGL 325.0]

Prerequisite: EGL 201.1(.2)/202.1(.2).

The course examines the role of language in the forming of popular perceptions about the position of women and men in society. The topics include a comparison between English and other languages in matters of grammar, vocabulary, and semantics; a comparison between modern English and earlier stages; and an inquiry into the origin of authoritarian notions of correctness. The historical role of women as users and teachers of language is also considered. Present-day attitudes, implementation of non-sexist language guidelines, and the struggle to establish non-discriminatory language practices are also included in the study.

320.0 Cross-listed as SOC 320.0 Women In Canadian Society

Prerequisite for WMS 320.0: SOC 200.0 or 1.0 WMS course or permission of instructor.

348.1(.2) Cross-listed as PSY 348.1(.2) Psychology of Gender Roles

Prerequisite for WMS 348.1(.2): PSY 201.0 or permission of instructor.

349.1(.2) Cross-listed as ECO 349.1(.2) Women and the Economy

352.1(.2) Cross-listed as CLA 352.1(.2) Women In Antiquity I

353.1(.2) Cross-listed as CLA 353.1(.2) Women In Antiquity II

380.0 Cross-listed as PHI 380.0 Philosophical Issues In Feminism

Prerequisite for WMS 380.0: at least 1.0 credit in philosophy.

387.1(.2) Cross-listed as SOC 387.1(.2) Women and Development

Prerequisite for WMS 387.1(.2): at least 1.0 credit in WMS, political science, economics or sociology.

391.1(.2) Cross-listed as MGT 391.1(.2) Women In Management

Prerequisite for WMS 391.1(.2): completion of at least 10.0 credits.

404.1(.2)-405.1(.2) and 406.0 Contemporary Issues of Feminism

Prerequisite: at least 2.0 credits in WMS or permission of instructor.

These courses provide an opportunity for students to study in considerable depth and detail selected contemporary issues of feminism both within and outside of academia. For example, a course might focus on inequality of women in the labor force, the role of unpaid work, violence and its use against women, the colonization of knowledge within academia, or on technology including the impact of new reproductive technologies and their control of women.

407.0-408.0 and 409.1(.2)-410.1(.2) Cross-listed as SOC 407.0-408.0 and 409.1(.2)-410.1(.2) Directed Readings In Sociology

Prerequisite for WMS 407.0-408.0 and 409.1(.2)-410.1(.2): at least 4.0 credits in WMS and permission of instructor.

414.1(.2)-415.1(.2) and 416.0 Directed Readings In Women's Studies

Prerequisite: at least 4.0 credits in WMS courses.

These courses offer students an opportunity to pursue advanced readings and research in a particular area of Women's Studies. The students and professors will design the programs of study together.

417.1(.2) Cross-listed as EGL 417.1(.2) Feminist Literary Theory**420.1(.2) Seminar on Women's Studies**

Prerequisite: at least 13.0 credits or permission of instructor.

Students will review feminist theoretical perspectives, methodologies, and analytic approaches grounded in several disciplines in the humanities and social sciences. Each student will develop a research proposal that applies feminist perspectives to a selected contemporary issue within the women's movement (e.g., labor force inequality, new reproductive technologies, women's organizational structures, political empowerment, violence against women).

421.1(.2) Seminar on Women's Studies

Prerequisite: WMS 420.1(.2).

Students will continue to develop their analytic skills and apply feminist methodologies and analysis in carrying out their proposed research.

422.1(.2) Cross-listed as IDS 422.1(.2) [622.1(.2)] and SOC**422.1(.2) Gender and Development: Theory and Method**

Prerequisite for WMS 422.1(.2): theory and methods courses in WMS or sociology or permission of instructor.

423.1(.2) Cross-listed as IDS 423.1(.2) [623.1(.2)] and SOC**423.1(.2) Gender and Development: Policy Issues**

Prerequisite for WMS 423.1(.2): theory and methods courses in WMS or sociology or permission of instructor.

425.0 Cross-listed as FRE 425.0 Women's Literature In France and French Canada**432.1(.2) Cross-listed as SOC 432.1(.2) Gender and Law****447.1(.2) Cross-listed as SOC 447.1(.2) Work and the Empowerment of Women In India****448.0 Cross-listed as SOC 448. Feminist Analysis: Field Research on Women and Men**

Prerequisite for WMS 448.0: previous or concurrent theory and methods courses in WMS or sociology or permission of instructor.

461.1(.2) Cross-listed as EGL 461.1(.2) Polemical Writing by Women**468.1(.2) Cross-listed as SOC 468.1(.2) Women's Organizations and Change****550.0 Cross-listed as EGL 550.0 Special Author**

Prerequisite if taken as WMS 550.0: enrollment in the honors program in English, or special recommendation of the Department of English, or permission of instructor.

590.0 Cross-listed as EDU 590.0 Directed Study in Education

Prerequisite for WMS 590.0: permission of instructor.

Note: Lists of courses in Women's Studies offered at Mount Saint Vincent and Dalhousie Universities are available in the academic calendars of those institutions or from the Saint Mary's WMS Coordinator.



*The
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Power
Library*

**Financial
Information**

Section

6

Financial Information

It is the responsibility of all students to be familiar with university regulations pertaining to financial matters.

At the time of publication, fees for the 1994-95 academic year had not yet been determined. The fees listed below are those for 1993-94 and are subject to change prior to 1 September 1994. All fee calculations are made at registration without prejudice and are subject to confirmation and adjustment at a later date.

1. Academic Fees

(Fees listed below are those in effect for 1993-94)

a. Tuition Fees

	Cost per Course (i.e., 1.0 credit)
Undergraduate Programs	
- Bachelor of Arts	\$530.00
- Bachelor of Commerce	\$530.00
- Bachelor of Science	\$530.00
- Bachelor of Education	\$530.00*
*except for EDU 595.1; 591.1(2); 595.1(2) where there is no charge assessed	
- Diploma in Engineering	
100 and 200 Level EGN Courses	\$400.00
300 Level EGN Courses	\$530.00
- Co-Op Work Term	\$530.00

Graduate Programs

- M.A. - Atlantic Canada Studies	\$726.00
- M.A. - History	\$726.00
- M.A. - International Development Studies	\$582.00
- M.A. - Philosophy	\$582.00
- M.B.A.	\$530.00
- M.B.A. - University College of Cape Breton	\$900.00
- M.Sc - Applied Psychology	\$582.00
- M.Sc - Astronomy	\$582.00
- M.A. - Education	\$582.00
- M.Ed - Education	\$582.00
- M.Ed - Education - Prince Edward Island	\$1,000.00

b. Students' Association Fee

This fee is compulsory for all students with the exception of those registered exclusively in courses offered in extension centres.

Course Load	Per Semester	Per Academic Year
3 courses or more	\$50.50	\$101.00
Less than 3 courses	\$ 8.00	\$ 16.00

c. Medical Fees

Canadian students registered in 3 or more courses and all non-Canadian students (regardless of course load) will be assessed a medical insurance fee at the time of registration. The fee is payable in full prior to 30 September for students who have completed August registration or at September registration for all other students.

	Single	Family
*Canadian Students		
- extended health care plan	\$ 96.00	\$ 216.00
**Non-Canadian Students		
- add equivalent to Nova Scotia's Medical Service Insurance (M.S.I.)	\$ 236.00	\$ 468.00

Total Non-Canadian: \$ 332.00 \$ 684.00

Canadian students who wish to opt out of insurance coverage may do so if they have similar medical coverage. To do so they must complete a waiver form, available from Health Services, on or before 30 September.

**Exceptions will be considered before 30 September. Proof of coverage by a similar plan valid for the entire academic year must be presented to Health Services.

d. Differential Fees

Students should be aware that the current fee structure for differential is under review and any changes to it will be communicated to students prior to the start of the 1994-95 academic year.

Non-Canadian students must pay a differential fee. Students registering in August must pay the first semester fee by 30 September. Students registering in September must pay the first semester fee at the time of registration.

Course Load	Per Academic Year
3 courses or more	\$1,700.00
Less than 3 courses	
Full course	\$ 340.00
Half course	\$ 170.00

Note: A detailed description of differential fees is available from the Business Office.

Examples of Fee Calculations

Example #1

Canadian Student: 5 Full-Credit Undergraduate Arts Courses

	1st Semester	2nd Semester	Total
Tuition	\$1,325.00	\$1,325.00	\$2,650.00
Medical	96.00	N/A	96.00
Students' Assoc. Fee	50.50	50.50	101.00
Differential	N/A	N/A	N/A
Total	\$1,471.50	\$1,375.50	\$2,847.00

Example #2

Canadian Student: 4 Full Credits - Graduate History Courses

	1st Semester	2nd Semester	Total
Tuition	\$1,452.00	\$1,452.00	\$2,904.00
Medical	96.00	N/A	96.00
Students' Assoc. Fee	50.50	50.50	101.00
Differential	N/A	N/A	N/A
Total	\$1,598.50	\$1,502.50	\$3,101.00

Example #3

International Student Taking Normal 1st Year Engineering

	1st Semester	2nd Semester	Total
Tuition	\$1,460.00	\$1,460.00	\$2,920.00
Medical	332.00	N/A	332.00
Students' Assoc. Fee	50.50	50.50	101.00
Differential	850.00	850.00	1,700.00
Total	\$2,692.50	\$2,360.50	\$5,053.00

Example #4

Canadian Student Taking One-Half Credit Course in Each Semester Graduate Education

	1st Semester	2nd Semester	Total
Tuition	\$291.00	\$291.00	\$582.00
Medical	N/A	N/A	N/A
Students' Assoc. Fee	8.00	8.00	16.00
Differential	N/A	N/A	N/A
Total	\$299.00	\$299.00	\$598.00

e. Audit Fees

Students auditing courses described in Academic Regulation 2 will be assessed regular tuition and all other compulsory fees exactly as if they were doing the course(s) for credit.

f. Thesis and Major Research Paper Continuation

Graduate students who have completed course requirements, but not their thesis, or major research paper, must officially register in the normal way and pay a fee of \$265.00 for each academic session in which work on the thesis or major research paper continues.

g. Special Fees

Graduation: Degree or Diploma	\$20.00
Binding of Master's Thesis (3 copies)	33.00
Official Transcript	2.00

Special Examination	10.00
Special Examination (2 or more)	20.00
Late Registration	10.00
Academic Appeal	25.00

2. Residence Accommodation and Meal Plan Fees

	Per Semester	Per Academic Year
Single Room		
Meal Plan I	\$2,102.50	\$4,205.00
Meal Plan II	\$2,252.50	\$4,505.00
Meal Plan III	\$2,352.50	\$4,705.00
Double Room		
Meal Plan I	\$1,892.50	\$3,785.00
Meal Plan II	\$2,042.50	\$4,085.00
Meal Plan III	\$2,142.50	\$4,285.00
Apartment, Edmund Rice Residence (room only)	\$1,000.00	\$2,000.00

Descriptions of the various residence and meal plans available are specified in the Resource and Services section of this Calendar.

3. Payment of Fees

a. August Registration

A deposit must be paid at August registration. (At September registration full fees are due – see b. September registration.)

3 courses or more in the first semester	\$200.00
Less than 3 courses in the first semester	\$100.00

Outstanding first semester fees are due no later than 30 September and second semester fees are due no later than 15 January.

b. September Registration

Once August registration has ended, it is not possible for students to pay only the \$100.00 or \$200.00 deposit (whichever is applicable) towards tuition fees; instead, all first semester's fees are due at the time of September registration. Second semester fees are due no later than 15 January. In special circumstances, the University reserves the right to require pre-payment in excess of the first semester portion of tuition and residence charges.

In September students planning to pay first semester fees from a Canada Student Loan, who have not received their loan, will be permitted to register if they (a) can provide proof of loan application and (b) they pay the appropriate deposits listed below:

Tuition only (3 courses or more)	\$300.00
Single Room/Meal Plan	\$700.00
Double Room/Meal Plan	\$650.00
Apartment	\$350.00

c. January Registration

Students who were not registered for the first semester and who register prior to the end of that semester for the second, must pay a deposit of \$200.00 if registering in 3 or more courses, or \$100.00 if registering in less than 3 courses. The balance of fees is due no later than 15 January. Students who register for second semester courses in January must pay all fees at the time of registration.

d. Cheques or money orders should be made payable in Canadian funds to Saint Mary's University. Visa and Mastercard are accepted.

e. Unpaid Accounts

Students who have not paid all fees in accordance with 3-a, 3-b or 3-c above, may have their registration cancelled at the discretion of the Registrar upon the recommendation of the Assistant Comptroller.

f. Students whose accounts are in arrears will not be permitted to register until the account has been paid in full. Such payments must be made by cash, money order, certified cheque, Visa or Mastercard.

g. A student whose registration has been cancelled for non-payment of fees must pay all outstanding fees and an additional fee of \$50.00 prior to any consideration of reinstatement by the Registrar.

4. Late Payment

a. Students who do not pay first semester fees by 30 September and/or second semester fees by 15 January are subject to late payment charges. The charges are \$5.00 for each business day the account is in arrears to a maximum of \$50.00 per semester or ten percent (10%) of the outstanding balance, whichever is less.

b. In addition to the late penalty outlined in Section 4-a, any account outstanding after 30 September in the first semester and 15

January in the second semester, will be subject to an interest charge of one percent (1%) per month.

Note: In light of the late penalty and interest charges outlined above, students planning to pay their fees with Canada Student Loan assistance are strongly encouraged to make application in sufficient time to ensure that the loan will be available prior to the last day for final payment of fees.

c. Students whose accounts are in arrears will be denied marks, transcripts and may be denied graduation.

5. Class Withdrawals and Refunds

Note: Non-attendance at classes does not constitute official withdrawal from a course or the University. See Academic Regulation 16 for further details.

a. Students who officially withdraw prior to the first day of classes will receive a full refund of any fees paid, less a \$25.00 processing fee.

b. Students who officially withdraw once the official change of registration period is over will be eligible for an adjustment of tuition and differential fees on a proportional basis calculated over a six week period, as shown on the following schedule.

1st Semester Tuition and Differential

Week ending	
24 September	– refund is 6/7 or 85.8% of tuition and differential
01 October	– refund is 5/7 or 71.5% of tuition and differential
08 October	– refund is 4/7 or 57.2% of tuition and differential
15 October	– refund is 3/7 or 42.9% of tuition and differential
22 October	– refund is 2/7 or 28.6% of tuition and differential
29 October	– refund is 1/7 or 14.3% of tuition and differential

2nd Semester Tuition and Differential

Week ending	
14 January	– refund is 6/7 or 85.8% of tuition and differential
21 January	– refund is 5/7 or 71.5% of tuition and differential
28 January	– refund is 4/7 or 57.2% of tuition and differential
04 February	– refund is 3/7 or 42.9% of tuition and differential
11 February	– refund is 2/7 or 28.6% of tuition and differential
18 February	– refund is 1/7 or 14.3% of tuition and differential

If the adjustment of fees will result in a refund, the student must apply for the refund directly to the Business Office.

c. Student who leave the University without officially withdrawing and who subsequently officially apply for and are granted a retroactive withdrawal, will be charged a \$50.00 processing fee in addition the regular University fee assessment to the date established for official withdrawal.

6. Residence Withdrawal and Refunds

Students who withdraw from residence and do not simultaneously withdraw from the University, or are dismissed by the University from residence, are not eligible for an adjustment of room fees and will be assessed fees for the entire academic year. The University will use its best efforts to rent the vacated room for the balance of the academic year, and if successful in doing so, will rebate to the student an amount equivalent to the rent received from the new occupant of the room. These students are eligible for an adjustment of board fees on a proportional basis, calculated in weekly units. Students who withdraw from residence, and simultaneously from the University, are eligible for an adjustment of room and board fees on a proportional basis, calculated in weekly units. The minimum charge for residence is \$250.00 regardless of the date of withdrawal. No fee adjustment is granted after 15 November in the first semester and 28 February in the second.

7. Scholarships, Bursaries, and Sponsorships

a. Only one-half of the value of any scholarship or bursary awarded by the University will be credited to the student's account during each of the two semesters. Unless the value of the scholarship or bursary is equal to or greater than the total fees for the

year, payment is required by the student (section 3a & 3b). If the award exceeds the total semester's charges, refunds will be given by the Business Office, to those students requesting them, after 15 November for the first semester and after 28 February for the second semester.

b. Students whose fees are to be paid by government or some other sponsoring agency (excluding Student Loan Programs) are required to present a signed statement, certificate or other appropriate supporting document at registration.

8. Miscellaneous

a. Students will be charged for damage to University property.

b. Cheques returned by the bank are subject to a \$10.00 charge. Replacement of such cheques and future payments by the payee must be by cash, money order, certified cheque, Visa or Mastercard. N.S.F. cheques are considered a serious offence and may result in de-registration.

c. Income tax receipts will be automatically mailed to all students by the middle of March. Duplicate receipts will cost \$2.00 and must be ordered from the Business Office.

d. Students may be entitled to a tuition discount if they, their spouse, or parents are employees of the University. In order to receive this tuition discount, the University employee must apply to Personnel Services. This tuition discount does not apply to the Executive Master of Business Administration degree.

e. Students who are Canadian citizens or permanent residents and are 60 years of age or over on the first day of classes in September will be granted a full tuition waiver.

f. Fees cannot be deducted from wages paid to students by the University.

g. Parking on Campus

Residence Parking		
Underground:	Tenants	\$ 21.00 per month \$200.00 per year
	Non-Tenants	\$ 25.00 per month (+ G.S.T.) No yearly rate
	Edmund Rice Residence Parking	\$ 75.00 for eight (8) months
	Motorcycles	\$ 50.00 per year
	Other Parking	\$ 90.00 per year (G.S.T. included)

h. Fees and withdrawal scales as outlined in this section of the academic calendar do not apply to the Executive Master of Business Administration degree, the Master of Education degree offered in Prince Edward Island, or the Master in Business Administration degree offered in Cape Breton.

Student Awards and Financial Aid Programs

The scholarships and bursaries administered by Saint Mary's University are divided into three categories: (a) Entrance Scholarships administered by the Admissions Office in cooperation with the Senate Scholarship Committee, (b) Achievement Scholarships; and (c) Named Scholarships and Bursaries administered by the Financial Aid Office in cooperation with the Senate Scholarship Committee.

Definitions

Scholarship – An award granted on the basis of academic merit. Normally, quality point averages of 3.50 – 4.00 are recognized.

Entrance Scholarship – An award granted to students entering Saint Mary's University from high school. Please contact the Admissions Office for information.

Achievement Scholarship – An award granted on the basis of academic achievement attained during the preceding academic year (i.e., September to May) at Saint Mary's. Please contact the Financial Aid Office for information.

Bursary – A grant awarded on the basis of financial need. Applications are available 1 October to 1 February, from the Financial Aid Office.

Scholarship Eligibility – The formula used by the Senate Scholarship Committee to determine scholarship eligibility is arrived at annually from the academic performance of the top 10% of full-time students carrying five courses during the preceding year.

Awards Administered by Saint Mary's University

1. Presidential Scholarships

Conditions: A very limited number of special entrance scholarships are available to a few students from Nova Scotia who live beyond commuting distance from the University. To be eligible students must be in Grade XII and must have maintained the highest accumulative scholastic average in the graduating class. Recipients of this award are ineligible for other awards administered through Saint Mary's University. No application is required.

Value: Full tuition and fees as well as a single room with board in the University residence. Equal in value to approximately \$7,200.00

Duration: One year. Renewable for up to two further years (three for Commerce) providing the holders maintain high academic standing at Saint Mary's. Recipients are not required to reapply each year.

2. Metro Scholarship

Conditions: This scholarship has the same conditions as the Presidential except that it is awarded to a Grade XII student from the Halifax-Dartmouth Metropolitan area who resides off-campus. No application is required.

Value: The cost of tuition and fees only.

Duration: The same terms as for the Presidential Scholarships.

3. Other Entrance Scholarships

Condition: Candidate must be a permanent resident of Canada. No application is required.

Value: \$200.00 to \$2,000.00.

Duration: One year.

4. Achievement Scholarships

Conditions: Candidates must qualify according to the Regulations for Scholarships Holders outlined below. No application is required.

Value: \$200.00 to \$2,000.00.

Duration: One year. Students with quality point averages of 3.50 – 4.00 are considered each year as they progress satisfactorily toward a first undergraduate degree.

Saint Mary's University Undergraduate Scholarship Regulations and Application Procedures

a. By 25 May candidates for scholarships must apply each year to the Financial Aid Office. Named Undergraduate Scholarships, Alumni Leadership Awards, and Faculty Union Scholarships require applications. Application packages are available from late March until the deadline of 25 May. Applications are not required for Achievement Scholarships.

b. Each award is granted for one academic year only. However, scholarships may be renewed each year on a competitive basis, providing the students reapply and qualify.

c. Students are responsible for notifying the Financial Aid Office of late course completions and grade changes which were not recorded at the time when scholarship applications were filed. These must also reach the Financial Aid Office by 25 May.

d. In order to be considered for an undergraduate scholarship students must have completed at least five full courses (or the equivalent in half courses) in the immediate preceding academic year (i.e., September to May). Courses taken at other institutions during the regular academic year and accepted as transfer credits at Saint Mary's University will be considered by the Senate Scholarship Committee provided that they appear on the student's record by 25 May or that the student notifies the Financial Aid Office of any possible transfer credits by that date.

e. Students who receive scholarships from Saint Mary's must register in at least five full courses (or the equivalent in half courses) in order to be eligible for the scholarships for that academic year. An exception will be made for graduating students who require only three or more full courses (or the equivalent in half courses) to complete their degree program, as well as disabled students. The criteria for retaining any scholarship will be outlined in the letter from the Financial Aid Office.

- f. Students who are full time in one semester and part time in another or withdraw or complete their studies after one semester will receive one half of their scholarship.
- g. Students who receive scholarships and fail to qualify for a renewal may reenter the competition for scholarships should they subsequently requalify.
- h. Scholarships are taxable income. A T-4A form will automatically be prepared by the University.
- i. At Registration, scholarship recipients are required to pay the balance of fees not covered by the award. If you have been awarded a Saint Mary's University scholarship, the value of which is equal to or greater than \$400.00, no tuition payment is required at August Registration.

Named Undergraduate Awards

A growing number of University-administered scholarships and bursaries are available to qualifying students at Saint Mary's University. Many of these awards have been established by generous Alumni, parents of Alumni, corporations and friends of the University. Such financial support from these benefactors provides significant assistance to both the University and the annual recipients of the awards. The entire University community is grateful for this generosity and support. Others are encouraged to support Saint Mary's in this manner. Should you wish to establish a scholarship or bursary at Saint Mary's please contact the Director of University Advancement.

Detailed award values, criteria and application information for the named undergraduate scholarships and bursaries can be obtained from the Financial Aid Office. A separate brochure, *Scholarships, Bursaries, and Government Loans*, provides descriptions of individual awards.

The scholarship application deadline for the 1994-95 academic year is 25 May 1994.

Bursary applications will be available between 1 October and 1 February. Award decisions will be made twice during the academic year. Provincial student aid assessment forms must be submitted with the bursary applications to assist University staff in assessing students' needs.

5. Scholarships for Part-Time Students

There are achievement scholarships available for students studying on a part-time basis. Applications are included in the scholarship package available from late March until the 25 May deadline from the Financial Aid Office. Continuing Education will also have packages available for those unable to get to the University during regular office hours.

6. Mature Students

Students accepted on the basis of mature admission who show potential for high academic achievement may be considered for an entrance award through the Continuing Education Office. Letters of application should be sent with an updated résumé and previous academic transcripts.

7. Demonstrators and Teaching Assistantships (Graduate Students Only)

In some departments positions as laboratory demonstrators or research/teaching assistants are available for Saint Mary's University students. For more information please contact the appropriate department.

Awards Administered by the Donor (External Awards)

These are some of the awards for which Saint Mary's students may apply directly.

Canadian Federation of University Women Bursary
 Canada Memorial Foundation Scholarships
 CN Native Educational Awards
 The Donald E. Curren Scholarship Fund
 Department of Education – Scholarship for Black Students
 Imperial Oil Higher Education Awards (Entrance and renewal)
 I.O.D.E. Provincial Chapter Bursaries
 McEwen Scholarship: Co-op Atlantic: Entrance Award
 The Nova Scotia Federation of Labour – The Joe Gannon Memorial Scholarship
 Petro Canada Education Awards for Native Students
 Queen Elizabeth Silver Jubilee Awards
 The Rotary Foundation Scholarships

The Soroptimist Foundation Scholarship Programs for Women
 Terry Fox Humanitarian Award Program
 Tourism Scholarship of Prince Edward Island

For information concerning external awards application procedures, eligibility and addresses, please contact the Financial Aid Office.

Financial Aid Programs Administered by the Government

Canada Scholarships Program for Science and Technology
 Administered by the Association of Universities and Colleges of Canada for Industry, Science, and Technology Canada.

Canada Student Loans Plan

Students requiring financial assistance to help meet their educational expenses are recommended to apply for Canada Student Loans. (Exception: Residents of Quebec apply for Quebec Student Loans.) Application is made to the province in which the student is a resident. Canada Student Loan assistance is awarded on the basis of financial information provided by the student, parents or spouse. The loans are interest-free while the student is registered full-time at university and are repayable six months after he/she ceases full-time study. Students are encouraged to apply before 30 June (30 May for Quebec) to avoid late payment charges at the University. Applications are available directly from the provincial offices. Nova Scotia residents should pick up forms from the Provincial Student Aid Office, 2021 Brunswick Street, Suite 409, Trade Mart Building (see mailing address below). A limited supply of out-of-province applications are available from Student Services, 4th Floor, O'Donnell-Hennessey Student Centre. Applications are available from provincial Student Aid offices.

Provincial Bursaries/Grants

Non-repayable bursaries or grants are provided by some provinces to students who demonstrate financial need and meet the bursary/grant eligibility requirements. Students must first apply for a Canada Student Loan through their Provincial Student Aid Office. Other provinces, such as Nova Scotia, have a loan only program.

Notification of Award

Students found eligible for Canada Student Loans from Nova Scotia and New Brunswick will be sent their notification and documents in the mail. Canada Student Loans and/or bursaries from most other provinces are sent directly to the University.

Students expecting Provincial Student Aid should check the Provincial Awards Board located in Student Services on the fourth floor of the O'Donnell-Hennessey Student Centre. Notices of any funds received are posted here as well as relative information or special instructions pertaining to each province. Funds will be held at the Business Office, McNally Main, until students sign for them.

Canada Student Loans Program: Part-Time Loans Plan

Guaranteed loans for part-time students attending post-secondary institutions are available under this program funded by the Federal Government. These interest-bearing loans are calculated on the basis of the student's financial situation and cover the basic university expenses. Repayment of these loans begins thirty days from the date on which the loan was negotiated.

Canada Student Loans Programs: Interest Relief Plan

The Canadian Government will pay the interest on full-time or part-time Canada Student Loans on behalf of the debtor if he/she is experiencing financial hardship due to unemployment or disability. Applications for Interest-Relief forms are available in local banks.

Detailed information regarding financial aid eligibility, application procedures and appeals may be obtained by writing to the appropriate Provincial Student Aid Office as listed below. Assistance with more complicated appeals is available by contacting the University Financial Aid Officer.

Nova Scotia	Student Aid Office Department of Advanced Education and Job Training P.O. Box 2290 Suite 409 2021 Brunswick Street Halifax, Nova Scotia B3J 3J9 Telephone (902) 424-8420 General Inquiries Voice Response Unit (902) 424-7737 Toll free in Nova Scotia 1-800-565-8420 General Inquiries 1-800-565-7737 Voice Response Unit
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New Brunswick	Student Financial and Support Services P.O. Box 6000 Fredericton, New Brunswick E3B 5H1 (506) 453-2577 (506) 453-2713
Newfoundland	Student Aid Division Department of Career Development and Advanced Studies Memorial University St. John's, Newfoundland A1C 5S7 (709) 576-2688 Recording (709) 576-4235 Information and Assistance 1-800-563-2000
Ontario	Student Awards Branch Ministry of Colleges and Universities Student Support Board P.O. Box 4500 189 Red River Road – 4th Floor Thunder Bay, Ontario P7B 6G9 1-800-343-7260 1-800-465-3013 (within Ontario)
Prince Edward Island	Student Aid Office Department of Education P.O. Box 2000 Charlottetown Prince Edward Island C1A 7N8 (902) 368-4640
Quebec	Director generale de l'aide financiere aux etudiants 1035, De la chevrotiere Quebec, Quebec G1R 5K9 (418) 643-3750

Note: Addresses for Student Aid Offices in other provinces are available upon request from the Financial Aid Office.

United States Stafford Loans Program (formerly GSL)

Citizens of the United States may be eligible for guaranteed student loans from their state to assist the funding of their post-secondary studies. Information and/or application forms may be obtained from the State Higher Education authority, State banks or the Financial Aid

Office. Financial Aid Forms (FAF) must be submitted to the College Scholarship Service, Princeton, N.J., in order to complete state loan assessments. Saint Mary's school code for U.S. loans is 008364. For FAF forms the school's code is 0958.

Note: Canadian schools do NOT approve loans.

Post Graduate Scholarship Assistance

Students whose university performance give promise of successful graduate studies should seek advice on availability of fellowships and scholarships. Interested students should contact the Secretary to the Senate, Room MM103, McNally Building, Saint Mary's University.

Father Burke-Gaffney Memorial Scholarship – Astronomy

Allister and Josephine Cannon Memorial Scholarship – MBA

Central Guaranty Trust Award – MBA or senior Commerce student

John Despard de Blois Scholarship – Astronomy

The Dover Trust Co. Limited MBA Bursary

The Raymond W. Ferguson Bursary

One bursary of \$1,500 or two bursaries of \$750 each to be awarded by the University's Graduate Awards Committee based on the recommendation of the MBA Director and Dean of Commerce.

To be eligible for this award, a student must:

- a. have completed five (5) MBA credits at Saint Mary's University on a full-time basis;
- b. be enrolled in the MBA program on a full-time basis;
- c. be a Canadian citizen who has lived in Nova Scotia for at least ten (10) years;
- d. show evidence of financial need, academic ability, and possess those qualities of character and initiative which indicate potential leadership in the business world.

Mahon's Stationery Limited Scholarship

Awarded by the Graduate Awards Committee to a second year MBA student.

Pendse Awards – MBA

Royal LePage Scholarship – MBA

Saint Mary's University MBA Scholarship

Note: The Gary W. Richardson Memorial Commerce Bursary alternates between the M.B.A. and Commerce undergraduate programs.



*Financial
matters*

**Centres
Institutes
and
Special Programs**

Section

7

Centres, Institutes, and Special Programs

Atlantic Canada Centre for Environmental Science

The Atlantic Canada Centre for Environmental Science was established at Saint Mary's University in 1991. Its primary function is to foster interdisciplinary teaching and research related to the environment.

Objectives

The purposes and functions of the Centre are to provide:

1. a mechanism for interdisciplinary teaching and research relating to the environment;
2. science graduates better prepared to meet the challenges of the 21st century;
3. opportunities for interaction of faculty and departments in a common theme;
4. a focal point to facilitate discussions with business and government agencies for research grants and contracts relating to environmental subjects;
5. opportunity for employment of cooperative education students on projects within the Centre.

Structure

Membership of the Centre is open to Saint Mary's faculty members and other qualified professionals interested in any aspect of environmental science in the broadest sense of the term. The Centre is administered by a Director who reports to the Dean of Science and operates in consultation with the membership and an advisory board composed of members from industry, environmental non-government organizations and federal, provincial and municipal levels of government.

Resources

The Centre uses the resources of the Dean of Science and of the individual members of the Centre. These members are drawn from the Departments of Biology, Chemistry, Economics, Finance and Management Science, Geography, Geology, and Mathematics and Computing Science. Additional activities are funded from contract overheads. Projects of the Centre complement the B.Sc. environmental studies major.

Research

Members of the Centre are engaged in a wide range of activities including studies of climate change and its impacts, air pollution, geothermal energy, hydrogen economies, energy storage systems, energy cogeneration, hydrocarbon separation processes, impacts of mining on the landscape, weathering of mine tailings, environmental impacts of marine mining, coastal erosion, coastal zone management, ocean dumping, harbour pollution, fisheries management, effects of pollution on fish parasites, uses of fish waste, microbial insecticides, water pollution, acid drainage and palaeoenvironment analysis.

Business Development Centre

The Saint Mary's University Business Development Centre was established in 1989 as part of the University's community outreach initiatives. It has two basic objectives:

1. to provide top quality Commerce and MBA students with practical experience with the problems and opportunities facing small and medium sized businesses; and
2. to assist small and medium sized businesses in becoming more viable.

Experience gained through the Centre demonstrates for students the necessity for planning, for training and development, for marketing plans, for financial management and cost controls, etc. It contributes substantially to their understanding of the realities of the market place. Exposure to the problems of small business is relevant not only to would-be entrepreneurs but also to trainee professionals, many of whose clients will be small businesses, the bankers, accountants and consultants. Students would be more effective in the world of business because of the experience gained through the Centre, whatever their future careers.

The services offered by the Centre to start-up and small businesses were found by a reviewer to be "not only worthwhile but perhaps vital to the economic growth of the area" (Robbie Shaw: Peat Marwick Stevenson & Kellogg, 1992). The services are accessible to micro businesses because of the very low fee scale charged by the Centre. These low fees are made possible because of the funding support of the Atlantic Canada Opportunities Agency, Saint Mary's University, the Province of Nova Scotia and corporate sponsors. In addition, the Business Development Centre is strongly supported by the City of Dartmouth and the Dartmouth Chamber of Commerce. On November 1st, 1992, the Centre received a guarantee of funding for four years and moved to its present location in the Sterns Building at 81 Alderney Drive in downtown Dartmouth.

This partnership of the University, government and business was intended to find ways to service the needs of small business in Atlantic Canada and to encourage new initiatives in entrepreneurship. These activities are ongoing. In 1992, the SMUBDC won the Conference Board of Canada National Award for Excellence in Business/Education partnerships for Nova Scotia, and in the summer of 1993, the Centre was the first job placement for the first students in the new co-op program in Entrepreneurship and Small Business.

The Gorsebrook Research Institute for Atlantic Canada Studies

The Gorsebrook Research Institute for Atlantic Canada Studies was established at Saint Mary's University in 1982 to enhance and strengthen the research component of the University's well established Atlantic Canada Studies program. The Institute gives particular emphasis to the study of regional political economy, resource development, and the culture of the Atlantic Provinces.

Objectives

The primary aim of the Institute is to encourage and facilitate research pertaining to Atlantic Canada, and to disseminate research findings to the regional, national, and international communities. The Institute emphasizes interdisciplinary, interuniversity and university/other-sector research cooperation.

Structure

The Gorsebrook Research Institute was established by the Senate/Board of Governors of Saint Mary's University and, in turn, operates under its own Board of Directors. Comprising the Institute's Board are the President of the University or his designate, the Coordinator of the Atlantic Canada Studies Committee, four members of the University community, six members external to the University, and the Executive Director of the Institute, ex officio. Ultimately, the Institute's Board of Directors is responsible to the Board of Governors and Senate of Saint Mary's University.

Resources

The Gorsebrook Research Institute utilizes and complements the resources of Saint Mary's Bachelor of Arts degree program in Atlantic Canada Studies, which was introduced in 1975, and corresponding Master of Arts program, which began in the fall semester, 1983. Both programs are interdisciplinary in nature, drawing on the expertise of 25 faculty members whose teaching and research is focused on the Atlantic Region. In addition, the Institute draws on faculty associated with the International Development Studies program, and on Research Fellows and Associates of the Institute. The Institute operates a survey research centre which provides services to researchers in the region.

Research

A number of projects have been undertaken as part of the Institute's research program. These include a cooperative investigation involving faculty at both Saint Mary's and Dalhousie Universities focused on Nova Scotia's fishing industry, a study examining the contribution of women's work to local single-industry communities, a project considering the relationship between the structure of manufacturing in Halifax and economic development and employment generation, compilation of a comprehensive bibliography

of printed sources dealing with resource industries in the four Atlantic provinces, preparation of a comprehensive catalogue of Nova Scotian films, and a study of comparative aspects of forestry policy development in Sweden and Nova Scotia.

Activities and Programs

In order to improve regional research communication the Institute publishes the Atlantic Canada Research Letter twice a year. This publication reports on current research on Atlantic Canada in the social sciences and humanities, and aims to provide individuals with a ready source of reference for what is happening in their respective fields. Additional activities include faculty seminars, workshops, public forums, and conferences that have dealt with such regional concerns as the future of fisheries policy, assessment of the real potential of oil and gas development, and the impact of micro-chip technology on the workplace and employment. The Institute publishes a book series with Acadiensis Press entitled Studies in the Political Economy of the Atlantic Region. Three books have been published to date and two are in preparation. The Institute also publishes an occasional paper series.

The Institute of Human Values

The supporters of the Institute believe that knowledge, morality, and freedom form an interdependent triad, and that the contemporary break-down of this relationship threatens all three aspects of human development. The Institute seeks to restore these vital links through discussion, teaching, research, and publication.

The contemporary crisis to which the Institute addresses itself is fourfold:

1. A three-fold crisis in the humanities, the social and the natural sciences, stemming from the failure to produce a theory of knowledge consonant with their characteristic functions and activities, and with their essential complementarity.
2. A moral crisis deriving from the fact that personal morality has been divorced from knowledge on the one hand, and from personal and social well-being on the other.
3. A crisis of leadership in all aspects of human activity, deriving from a widespread inability to make any meaningful connection between knowledge and judgement.
4. A crisis in the area of political freedom which derives, at least in part, from a loss of the sense of the historical relationship between moral values and the winning and defence of that freedom.

The Institute does not attempt to grapple with these problems as a self-sufficient entity, but acts rather as a catalyst through which the human and physical resources of Saint Mary's and other universities are brought to bear upon them.

Institute Activities

1. The coordination of the work of the members of the Institute in the various disciplines.
2. Research on all aspects of the relationship between knowledge, values and freedom, as well as upon urgent contemporary problems in which values are deeply involved.
3. The advising of students who wish to supplement their majors with problem and theme oriented core programs.
4. Liaison with faculties and departments with the object of implementing and improving such programs.
5. The advising of students who wish to follow a program related specifically to human values.
6. The arranging of special lectures and symposia designed to explore all aspects of knowledge, values and freedom.
7. The editing of *The Vital Nexus*, a journal concerned with the relationships between conscience, justice, and freedom.
8. The production of video and sound tapes on values problems for distribution to the University community and to the public at large.
9. The organizing of interdisciplinary symposia at the annual meetings of the Canadian Learned Societies.
10. The establishment of a clearing house of information on questions related to knowledge, values and freedom, as a service to its members within the University and throughout the world.

The International Activities Office

Saint Mary's University is committed to the ongoing process of the "internationalization" and "globalization" of its campus. Priority is placed on developing global competence which is necessary for effective communication and dialogue with people, institutions, governments, and business from other cultures and nations. In addition, the University places emphasis on international contacts and activities which strengthen the competitive position of Saint Mary's in relation to international contracts and projects, sponsored research and employment opportunities for its students.

Demonstrating Saint Mary's University's commitment to the internationalization process, a new office responsible for International Activities was established in July 1992. The role of this office is to coordinate the international activities of the University, serve as liaison with governments, non-governmental organizations and international agencies involved in overseas programming, and assist in developing and managing the University's international contracts. An important function of this office is to assist academic departments in internationalizing their curricula and in pursuing international contacts.

Parallel to the International Activities Office, an International Activities Advisory Committee has been formed. This committee was established to provide advice to the Saint Mary's President on international matters and their relationship to the University community. Members of the committee include representatives from Saint Mary's, and external members from the Nova Scotia government and private sectors.

Program Organization

The Director of International Activities is supported by a project-based secretariat. The International Projects Office is responsible for managing international project activities on campus. It works in conjunction with the responsible faculty who are involved in a specific international project, and provides administrative and logistical support to the project activities.

The International Education Centre (IEC)

The International Education Centre carries out development education and anti-racism education programs in Nova Scotian schools and communities. It undertakes research projects and has a publication program in these areas. It also provides cross-cultural briefings and orientations for persons travelling abroad or arriving in Canada.

The Schools Program

The Schools Program staff design and deliver professional development workshops for teachers, focusing on topics and teaching strategies related to Third World countries, cross-cultural, anti-racism, and global issues. They also provide special model programs for students and teachers, demonstrating innovative teaching techniques or marking special days such as the International Day for the Elimination of Racial Discrimination. The Centre organizes Global Education for Teachers Conferences and helps support courses provided by Saint Mary's Faculty of Education. International students, immigrants from Asia, Africa and Latin America, as well as members from Canadian minority groups, play an important role in the program by giving presentations in schools throughout the province.

The Community Program

The Community Program promotes cooperation and interaction between the University and groups involved in anti-racism, cross-cultural, and international development work. It organizes public lecture/discussion series at Metro Public Libraries, hosts public meetings and conferences, publishes a monthly newsletter listing community international and cross-cultural events, and provides speakers from over 70 countries to community groups. It also makes IEC facilities available for meetings and events of ethno-cultural organizations and non-governmental international development organizations.

The International Briefing Centre

The Briefing Centre helps prepare people travelling and doing business abroad to operate effectively in other cultures. It provides orientations to Canada for new arrivals and for persons receiving visitors from abroad. It also organizes cross-cultural/anti-racism orientations and courses for Canadians.

The Resource Centre

The Centre has a significant collection of current audio-visual and print resources on international development, race relations, and cross-cultural issues. These are available for consultation and for loan by the public. The Centre provides a users' advisory service and orientations to the collection.

Publications and Research

The Centre's publications on ethnicity and race include works on ethnic heritage in Nova Scotia, two volumes in an "Issues in Ethnicity and Multiculturalism" series, bibliographies, and a Directory of Ethno-Cultural Organizations in Nova Scotia. Its publications on international development include a number of short monographs and two volumes on the Caribbean. Recent research activities have included collaboration on a survey of Canadian students' understanding of international issues. Several publications from this study are available. A data base compiled by the Centre on environment and development education activities across Canada is available on-line through the International Development Research Centre's (IDRC) library.

Organization

A fifteen-member Board of Directors oversees the activities of the Centre. The Board is drawn from Saint Mary's, the Nova Scotia school system, and the community at large. The Centre's staff includes an Executive Director; an Assistant Director responsible for the Community Development Education Program; a Schools Program Development Educator; an Anti-Racism Educator; a Briefing Centre Program Manager; a Resource Centre Coordinator; a Speakers Bureau Coordinator; and a Secretary. Other grant-supported staff carry out research, conference organization, and special activities. The Centre welcomes the involvement of international students and other volunteers in its programs.

Facilities and Funding

Most of the International Education Centre's offices and its Resource Centre are located on the main floor of the Burke Education Building. Next door are two theatres which the University makes available for IEC activities. The Executive Director's office is on the second floor of the Burke Education Building. The Briefing Centre and the research office are located at The Oaks.

The IEC's activities are supported through grants from CIDA's Public Participation Program, from Multiculturalism and Citizenship Canada, and through cost-sharing with various program partners. Briefing Centre programs are operated on a cost-recovery basis.

The Regional Geochemical Centre

The Regional Geochemical Centre at the Department of Geology is an integrated research service facility that provides high-quality chemical analyses to earth and environmental scientists at universities and in government and industry throughout the region. The facility was established in 1983 and is equipped with an X-ray fluorescence spectrometer, neutron activation analyzers and various analytical instruments for wet methods. The Centre is also used as a training facility for advanced undergraduate and graduate students.

The Teaching English as a Second Language (TESL) Centre

ESL/EAP Programs

The TESL Centre offers language, cultural, and orientation programs for non-native speakers through courses in General English as a Second Language, English for Academic Purposes (EAP), English for Specific Purposes (ESP), small tutorial or seminar groups, tutors for individuals, or integrative social activities. These programs may include academic, social and cultural components and provision of either residence or home-stay accommodation. Interaction with the surrounding English-speaking environment is also emphasized.

ESL Teacher Education

Experienced Canadian and international teachers taking a Master of Education degree in curriculum and instruction have the option of specializing in Teaching English as a Second or Foreign Language. They gain their practical experience working with classes of students learning English in the TESL Centre.

With the Division of Continuing Education, the TESL Centre also offers a certificate course in Teaching English as a Second or Foreign Language to university graduates who wish to gain knowledge and skills in this field.



One of many international students at Saint Mary's

8 Section

services
and
resources

Resources and Services

Alumni Association

The Alumni Association is an organization of graduates and former students of Saint Mary's. The Association seeks to promote the welfare of the University, and to foster continued association with the University and with one another. The activities of the Alumni Association are coordinated by the Alumni Office in conjunction with an elected executive which includes six members to the University's Board of Governors.

The Alumni Association sponsors the Student Alumni Association. These students are known as the SMU AMBASSADORS who serve to promote interaction between students and alumni and encourage students to become loyal, active supporters of Saint Mary's University. The SMU AMBASSADORS plan several programs each year that provide services to students, improve the quality of campus life and promote a sense of pride in the University. These programs include taking part in Alumni Weekend, the Christmas Daddies Telethon, Student/Alumni Mixers, Chocolate Rose Campaign, Exam Survival Packs as well as various other campus activities.

Annually, the Association in conjunction with the Faculty Union awards the Father W. A. Stewart, S.J., Medal for Excellence in Teaching; the Gold Medal for the outstanding undergraduate in Science; achievement awards for academic merit among resident students; and awards for graduating athletes.

The Association provides for substantial scholarship awards each year and supports many student activities and organizations.

The Alumni Office is located in Room SC310 on the third floor of the O'Donnell-Hennessey Student Centre.

Athletics and Recreation

The Department of Athletics and Recreation organizes and operates a variety of activities, providing an opportunity for all students at Saint Mary's University to participate on a number of different levels. The intramural and recreational programs are designed to promote fun, recreation, and sportsmanship by encouraging students to compete on a friendly basis. Emphasis is placed on participation. The club sports program provides an opportunity for all students to participate and/or compete in sports not included in the varsity program.

Saint Mary's is a member of the Atlantic Universities Athletic Association (AUAA) and the Canadian Interuniversity Athletic Union (CIAU). Our varsity teams compete in regularly scheduled league play with other universities in the Atlantic region and non-conference competitions with teams across Canada and in the United States.

Varsity (Men)

Basketball, Football, Ice Hockey, Soccer, Track & Field.

Varsity (Women)

Basketball, Field Hockey, Soccer, Track & Field, Volleyball.

Club (Men)

Volleyball.

Club (Men and Women)

Badminton, Cheerleaders, Fencing, Racquetball, Rugby, Squash, Tennis.

Club (Women)

Ice Hockey.

Intramural (League)

Ball Hockey, Basketball*, Coed Basketball, Coed Soccer, Coed Softball, Coed Volleyball, Football*, Hockey, Indoor Soccer, Soccer*, Softball, Volleyball*.

*men and women

Intramural (Tournament)

Badminton, Basketball, 3/3 Basketball, Broomball, Curling, Golf, Racquetball/Squash, Table Tennis, Tennis, Women's Ice Hockey.

Recreation (Unstructured)

Badminton, Basketball, Hockey, Jogging, Racquetball, Skating, Squash, Swimming, Table Tennis, Tennis, Tai Chi, Volleyball, Weight training, Yoga.

Recreation (Instructional)

Aqua Fitness, Fencing, Fitness Classes, Jazz Dance, Racquetball, Running Clinics, Social Dance, Squash, Step Training, Tai Chi, Tai Kwon Do, Tennis, Walking Clinics, Weight Training, Women's Self-Defence.

On-Campus Facilities

The Tower
Alumni Arena
Huskies Stadium (artificial track and field)
Swimming Pool
Tennis Courts

Saint Mary's Athletics and Recreation Tower was opened in June 1987. This centre houses a double-sided gymnasium with retractable seating, running track, racquetball and squash courts, weight training room, multi-use exercise room, sauna, whirlpool, steam room, offices, lounge, locker rooms, pro shop, sports medicine clinic, and equipment distribution area.

Bookstore

Situated on the second floor of the O'Donnell-Hennessey Student Centre, the bookstore utilizes 3,600 square feet of retail space to serve the University community.

The bookstore's prime role is to supply textbooks for current course offerings. In addition to textbooks, the bookstore carries an array of supplies, from pens to calculators, as well as an assortment of sundry items, including imprinted giftware, glassware, and crested clothing.

During the academic year, various services are available:

Used Book Buy-Back - At the end of both semesters, the bookstore conducts a buy-back of used books. Half price is paid for re-adopted textbooks, lesser amounts for books no longer used at Saint Mary's.

Ring Days - Rings can be ordered any time of the year, but during the special ring days, special discounts apply.

Special Orders - Personal copies of any book in print can be ordered through the bookstore. Customers pay list price plus postage.

Diploma/Degree Lamination - This method of preserving diplomas or degrees utilizes plastic sealing on a hardboard backing with attractive woodgrain finish.

The bookstore's regular hours: 9:00 a.m. to 4:30 p.m., Monday to Friday (7:30 p.m. on Wednesday). These are extended during rush periods.

Computer Services

The computing environment consists of over 1,000 workstations (PCs, MACs, Unix, terminals) in faculty, staff offices or in general access, departmental computer labs. About 700 workstations are connected through Appletalk or ethernet to the high speed campus backbone ethernet network while a few hundred are connected to the backbone through terminal servers. The campus backbone ethernet network contains Digital Equipment Corporation VAXes, Novell and AppleShare file servers, CD ROM servers, and a gateway to the world-wide internet system. Campus usage of the world-wide Internet system is high. Several electronic-mail programs are available for campus and internet usage including: Eudora (Mac), Pegasus (PC, Mac), POP (PC), Trumpet news reader (PC), VAX mail, Charon mail gateway, Newswatcher (Mac).

The main academic mainframe computer is a Digital Equipment Corporation VAX ALPHA running the OPEN VMS operating system. It has 64 million bytes (mb) of main memory, over 4,200 mb of on-line high speed disk storage, dual density (800/1600/6250 b.p.i.) magnetic tape drives, a 1,800 mb backup storage unit, several line printers, and an 8 pen drum plotter. Languages and compilers include: BASIC, C, COBOL, FORTRAN, MACRO-11, PASCAL, the DEC EDT editor. Statistical packages include: Minitab, SPSS-X, SPSS-X Graphics, SAS, TSP (Time Series Processor), Shazam Econometric Program, Bulletin Boards, survey data bases, Kermit, and TeX. The academic VAX internet address is Husky1.StMarys.CA

A Develcon Dataswitch supports serial connections to the VAXes, to computer systems located at other universities within the Metro-Halifax area, to the Novanet library system, and to dial-out communications for DataPac, Envoy 100. Off-campus users may connect to the academic VAX through several dial-up telephone lines. Remote PCs, Macs may also dial-up the Novell and AppleShare file servers and run programs remotely.

There are ten general access computer labs containing about three hundred micros (PCs and MACs) and one general access terminal lab with thirty-five terminals. All ten micro labs are connected to the campus backbone ethernet network and access Novell file servers for software, printer sharing, e-mail. A very wide range of PC and Mac software is available for statistics, graphics, charting and map drawing, CAD, financial and mathematical applications, word processing. There are several dot matrix and laser network printers. In addition to the ten general access micro labs, there are also several departmental computer labs. Instructors can show actual computer system usage in most labs and several classrooms, using computer data projection systems.

Besides the typical computer hardware and software used for data processing, there is a wide range of specialized computer equipment including: CAD (Computer Aided Design), OCR (Optical Character Recognition) scanning, digitizing tablets, multi-media, CD ROM servers, desk-top publishing, dedicated analogue/digital data logging systems.

Computer Services manages the academic and administrative VAXes, computer labs, and the campus backbone ethernet network. They also provide repair for most university owned computer equipment. Most university administrative systems are maintained by Computer Services. Tours of computing facilities, and assistance in using the VAXes and the public access microcomputer labs are also available. The latter is in addition to the liberal assistance available to students through their courses and labs. Computer Services provides technical advice relating to the selection and purchase of computer hardware and software. Various computer manuals and pamphlets are produced. Saint Mary's is also involved with several other universities in providing computer resources for academic and research purposes.

Patrick Power Library

The library was officially opened on campus in June 1976 and is named in honour of the late Patrick Power, a generous benefactor of Saint Mary's in its early years as a college.

In 78,000 square feet of space, the three storey structure provides study space for students and accommodation for 300,000 volumes. The library's collections are selected to support the teaching and research programs of the University. As well as the general book and serial collections, the library maintains a number of separate collections including reference, rare books, microforms, annual reports of major corporations, Canadian government documents, and the University archives.

In conjunction with other university libraries, the library uses the latest technological advances to facilitate acquisition and cataloguing of books. Novanet, the library's on-line catalogue, gives access to holdings in eight Nova Scotia universities' libraries.

The library subscribes to a number of information retrieval systems including CAN/OLE, DIALOG, IDRC, and INFOGLOBE, as well as many bibliographic data bases on compact disc (CD ROM). These systems are networked to provide access to a large number of computerized data bases covering a wide range of subject areas

including science, language and literature, education, the social sciences, business and economics, religion and philosophy.

The library offers a library instruction program to students through subject-specific library research sessions or through library workbook assignments.

A conference room and discussion rooms may be booked by groups of varying sizes.

Photocopying and fax service are available.

The Ferguson Library for the Print Handicapped is located on the main floor of the library. The Ferguson Library provides a free service to the print-handicapped - individuals who are either medically certified blind or whose physical disability prevents them from reading printed material. This service is available to both post-secondary students and professionals.

The holdings of the Ferguson Library consist of a permanent collection of complete titles on cassettes and also a substantial temporary collection, composed of short articles and selections from books. The Ferguson Library has a Kurzweil Reading machine which reads printed text by means of a scanner and a synthesized voice as well as a Magnilink to enlarge print up to fifty-four times.

The Media Centre is the headquarters of Media Services and is located on the third floor of the library. It provides playback facilities for audio and video cassettes, slides, films, filmstrips, film loops, and recorded plays, as well as a previewing service. Media Services provides closed circuit video viewing to 31 classrooms campus-wide.

The Language Laboratory, located on the second floor of the McNally Building, provides individual carrels where students and classes may listen to a variety of language tapes at a speed suitable to their requirements.

In addition to the services of the Patrick Power Library, students have access to the collections of other libraries in the area, and, through inter-library borrowing, to libraries all over the world. More detailed information on library collections, services, and hours of operation can be found in a series of printed guides available in the library.

Observatory

The Rev. Michael W. Burke-Gaffney Observatory at Saint Mary's University was opened in 1972.

The revolving aluminum dome measures five metres in diameter and rests upon an elevated pad atop the 23-storey academic-residence building. The Observatory's 0.4-metre reflecting telescope, the most powerful in Eastern Canada, is used primarily for student instruction.

The Observatory is open to the general public for viewing sessions on the first and third Saturday evening of every month. Further information is available from the Department of Astronomy and Physics.

An enclosed corridor connects the Observatory to the night office and instrument room.

The Observatory is named for the late Professor Emeritus, Rev. Michael W. Burke-Gaffney, astronomer, engineer, and educator, who was at Saint Mary's University from 1940 until his death in 1979.

Student Services

At Saint Mary's University the Department of Student Services includes the Office of the Director, Chaplaincy, Counselling, Health Services, Cultural Activities (including the Art Gallery), Financial Aid Counselling, Student Employment Centre, Atlantic Centre of Support for Disabled Students, University Residences and Food Services, International Student Advising, and Student Discipline.

Chaplaincy

Because of its traditional commitment to Christian education, Saint Mary's University continues to emphasize personal and social values deriving from the experience of Christian civilization. Its students and teachers represent a diversity of cultural and religious backgrounds and the University encourages participation in activities related to all faiths.

The Roman Catholic chaplaincy is found in Room 145 of the Loyola Residence; weekday Mass is provided in the Rice Chapel. In addition, a special University Mass is held every Sunday in Canadian Martyrs' Church located on the edge of campus. Protestant and Jewish services are available in nearby churches and synagogues.

Pastoral guidance is available from the University Chaplain and from clergymen of all major denominations.

Counselling Services

Saint Mary's University Counselling Centre staff provide free, professional counselling services to full and part-time Saint Mary's University students. To make an appointment, students may drop by the Office (4th Floor, Student Centre) between 9:00 a.m. and 5:00 p.m., Monday to Friday, or call 420-5615. Students may come to Counselling Services on their own, or they may be referred by a member of the University or outside community.

A variety of services are offered through Counselling Services. While some students request counselling to deal with personal problems, others participate in groups for support in dealing with stress and loneliness, to improve their study skills, or define their career goals. The following describe the various services available through Counselling.

Personal Counselling

Students are seen individually for assistance with a range of personal problems including anxiety, depression, difficulties in relationships, family conflicts, sexual orientation, poor concentration, drug and alcohol abuse, eating disorders, and other problems. Both male and female counsellors work with students to help them feel better about themselves and develop healthy ways of solving problems. Counsellors are available during the day to see students; however, there is no after hours coverage.

Group Programs

Women's Group - A Women's Group provides an opportunity for women to get together on a weekly basis with a Counsellor to deal with problems in a supportive, caring atmosphere. This group validates the complexity of women's experience and allows for personal growth and learning. Students interested in being part of the Women's Group should contact Counselling Services for more information.

Men's Group - A Men's Group provides an opportunity for men to meet on a weekly basis with a Counsellor to deal with men's issues. The group provides support, feedback, and an opportunity for men to share together about life's journey as a man. Interested students should contact Counselling Services for more information about the Men's Group.

Adult Children of Alcoholics - Adult Children of Alcoholics is a nine-week group program for students who have grown up in alcoholic families and wish to discover and work on those issues currently affecting their lives. Relationships, family roles, needs, coping strategies, intimacy, thoughts and feelings, are the common issues addressed by group members in a collaborative and supportive setting.

Assertiveness Group - This is a six-week group which teaches participants the skills of assertive communication. Topics of discussion include: blocks to assertiveness, learning to stand up for your rights without violating the rights of others, components of an assertive statement, and the differences between passive, assertive, and aggressive messages. Weekly goals and journal writing are incorporated into the program. For more information, contact Counselling Services.

Student Outreach Group - This is an informal student-led group which meets on a bi-weekly basis to provide support for lesbian, gay and bisexual students, their families and friends. It offers a safe place for students to explore myths and stereotypes, coming out, concerns about relationships, and HIV and AIDS-related concerns. Its purpose is to celebrate diversity and encourage understanding. Interested students may contact Counselling Services for more information about this group or check the bulletin board outside the Student Services Office.

Minimizing Midterm Madness Study Skills Program - This program consists of five, one-hour workshops examining the topics of time management and concentration, stress management, learning from texts and lecture notetaking, exam preparation and writing papers. Sessions are offered during orientation week, as well as first and second semester. Individual help with study skills is also available through the Peer Office.

Career Counselling - Students are invited to attend Career Orientation Sessions presented throughout the year, during which the range of career assessments and services available to students will be described. Included in these services are *CHOICES CT*, a computerized career exploration program, the Strong Interest Inventory, the Myers-Briggs Type Indicator and individual career counselling. These services are designed to assist students who are having difficulty selecting a career, choosing a major, or simply locating career information.

Peer Program

Peer Support Workers are trained student volunteers working in the Peer Office (4th Floor, Student Centre, in Student Services). Volunteers provide all students with information on study skills, career resources, campus services and student services programs. Volunteers also offer a group program, "Life at Saint Mary's", to first-year Saint Mary's students. This program looks at how to choose a major, campus life, study skills and programs offered for students. Interested students should drop by the Peer Office during office hours or call 420-5400, ext. 2170.

Sexual Harassment

To ensure and facilitate the pursuit of knowledge, Saint Mary's University is committed to the provision of an equitable environment for work and study for all university community members. Sexual harassment can seriously undermine the fulfilment of this primary goal by destroying the trust that is necessary for personal and educational freedom. In 1986, the Senate established procedures to discourage the presence of sexual harassment through education, and to investigate and resolve complaints of sexual harassment expeditiously and with fairness to all concerned.

Saint Mary's provides an advisory service to all members of the university community. The office of the Sexual Harassment Advisor is located on the fourth floor of the Students Centre. The Advisor is available by appointment by calling 420-5113. Inquiries outside these hours can be made through Student Services at 420-5615.

The Advisor is available to answer all inquiries concerning sexual harassment, and can provide educational programs for all campus groups. The Advisor is also available to consult with concerned individuals on a confidential basis, to suggest and explore a number of informal problem solving methods. She is also able to mediate formal disputes, and will advise complainants and respondents of correct procedures if involved in an investigation of sexual harassment. All inquiries are welcome, and will remain strictly confidential.

Atlantic Centre of Support for Disabled Students

The Atlantic Centre of Research, Access, and Support for Disabled Students is one of three "Centres of Excellence" created under the Department of the Secretary of State's Centres of Specialization Fund. The purpose for creating these Centres was to mobilize a truly Canadian effort in making post-secondary education accessible to hearing-impaired Canadians.

The Atlantic Centre commenced operations in January of 1985. Since August 1987, the Atlantic Centre has been operating under a grant jointly funded by the Nova Scotia Department of Social Services and the federal Department of Health. Although the Centre has a mandate to provide support services to all disabled students, the major focus, until 1987, was to implement programs to assist hearing-impaired students in the post-secondary system.

The Centre, located on the third floor of the O'Donnell-Hennessey Building, is a demonstration centre which will assist in transforming the campus into an environment that is accessible to all students. The Centre has acquired a limited number of devices, such as a Personal FM system, for students to borrow for classroom use.

These technical aids will ensure that the campus is well equipped to meet the needs of hearing-impaired students.

The Atlantic Centre, the Fitness and Recreation Centre, the Ferguson Tape Library for Print-handicapped Students, and other features such as accessible buildings, demonstrate the commitment of Saint Mary's to a totally accessible educational experience. Other universities within the Atlantic Region and throughout Canada will be able to experience first-hand how such an environment can assist a disabled student to complete a university education.

Ensuring that support services are available to hearing-impaired students attending Atlantic universities continues to be a vital role of the Atlantic Centre. The Visual Language Interpreting Program, a one-year course, is offered at Saint Mary's to develop entry-level interpreters capable of working in the university classroom.

A Tutor/Notetaker Program is being implemented in order to provide much-needed services. A Screening-in Program, which will evaluate admission requirements and examine criteria allowing for the screening-in (and not out) of hearing-impaired students, and computer-assisted instruction, are two other facets of the overall program providing hearing-impaired students with support services never before available in Canada.

The Atlantic Centre has on staff a deaf Educator/Counsellor who is qualified to provide counselling services to hearing-impaired students. The Educator/Counsellor is also available to faculty members for advice and intervention on behalf of faculty members or the hearing-impaired student.

Atlantic Centre - Innovations Project

Making the Employment Connection, funded in April 1988 for three years by Employment and Immigration Canada, Jobs Strategy Program, is demonstrating that capable, highly-motivated, and post-secondary educated persons with disabilities are successful candidates for career-track employment with large and small businesses in Nova Scotia.

Pre-Employment Support Services

The Project provides pre-employment interest and skills assessment counselling, job research and interviewing skills development, occupational therapy and computer technology consultations, and job placement for candidates and employers, designed to meet the specific needs of the person and the workplace.

Post-Employment Support Services

This aspect of the Project focuses on supplying the successful job candidate and their employer with the information and facilitation to make the transition into the workplace as smooth as possible. Services are tailored to meet the specific needs of each situation and might include workshops with co-workers to address fears and adjustments in the integration of the new employee, occupational therapy, computer, and vocational rehabilitation follow-up consultations.

Based on a consortium model, the Project is demonstrating that a partnership of large and small business, educational institutions, government agencies, and community resource groups that serve people with disabilities can produce an effective means of aiding Project candidates in finding meaningful work.

Research

In gathering and analysing all previous research materials regarding employment issues for persons with disabilities, alternate employment opportunities, distance education, consortium models, and any other topics deemed of importance to the Project, Making the Employment Connection aims to accomplish its information and advocacy goal by reporting and publishing in this field of research. Original research reporting, out of the development and findings of the Project, is the goal of the third year.

The staff of the Atlantic Centre are confident that the use of specialized equipment, interpreters, tutor/notetakers, counselling, and a screening-in procedure will enhance the opportunities for

hearing-impaired Canadians to pursue a post-secondary education with true equality in the country of their birth.

Financial Aid Office

Students are welcome to contact the Financial Aid Office for the following services.

Scholarships and Bursaries

Scholarship and bursary brochures are available from the Financial Aid Office. These booklets provide detailed criteria and application procedures for all awards administered by the University. Graduate students should contact the Senate Office regarding fellowships. The Admissions Office administers entrance scholarships.

Applications for undergraduate scholarships for continuing students based on high academic standing are available from the Financial Aid Office from late March until the 25 May deadline.

Applications for bursaries are available after October 1 from the Financial Aid Office. These are primarily based on need and satisfactory academic standing. The awards range from approximately \$200 to \$500.

Provincial Government Student Aid Programs (including U.S. loan applications)

Information on application procedures; residency questions (i.e., which province to apply to); Student Aid appeals (i.e., what areas of the assessment may be appealed); disbursement of Student Aid funds (i.e., where loans and cheques are obtained, timing and availability of funds).

Budget Counselling

Information on preparing a yearly budget is available. Students can also obtain help in:

- reviewing their yearly budget to determine whether they can meet the education expenses;

- exploring all sources of financial aid to meet the student's financial need;

- suggesting alternative sources of financial aid.

International Students

Letters are provided for international students regarding their expected education expenses for the academic year in question. Forms to request "Cost of Education" letters are available from Student Services reception.

External Awards (awards administered through outside agencies)

Information concerning external scholarships and bursaries is available from the Financial Aid Office.

This information is also forwarded to the Dean's office for posting. Students are encouraged to drop by for updated information.

Student Health Services

The C. Henry Reardon Medical Centre is located on the 4th floor of the Student Centre and is named in honour of the late Dr. C. Henry Reardon who served as its initial Director from 1967 to 1980. It provides the students with the same service they would receive from their family doctor. Referrals to specialists may be made through the clinic.

Office hours are 9 a.m. to 12 noon and 1:00 to 5:00 p.m., Monday through Friday. A nurse and secretary are in the office during office hours. The Doctor's office hours are 1:30 to 4:30 in the afternoon only. It is preferable that students make an appointment (420-5611).

During the evening or night a physician may be reached at 453-3511. For emergency service call 428-2043/428-2948 or go directly to the Victoria General Hospital Emergency Department, 1278 Tower Road. Emergency services are also available at the Halifax Infirmary, 1335 Queen Street, telephone: 428-2784.

In response to the serious health problem created by AIDS (Acquired Immune Deficiency Syndrome), in the fall of 1989, Senate and the Board of Governors of the University developed a policy for all students, staff, and faculty. Details on this official policy are available on request.

Medical Insurance

Each year the Health Insurance Committee decides which insurance company will carry the health plan and they, along with the insurance company, are responsible for the administration of the plan. The following description applies to the 1990-91 academic year. Please note that the health plan for Canadian students is under review and may not be available in its present form in the 1991-92 academic year. A description of the benefits in any revised plan will be available on request from Health Services.

1. Full-Time Students (Canadian and Non-Canadian)

An extended health care plan arranged by the Students' Health Insurance Committee is compulsory for all full-time students. Students who are already covered by a similar plan may opt out. (See Financial Information section of this Calendar for details.) This plan includes such benefits as prescription drugs, ambulance service, accidental dental, physiotherapy, life insurance, etc. For information on premiums, please consult the Financial Information section of this Calendar.

Full-Time Canadian Students

All Canadian students, with the exception of those residing in the Yukon or Northwest Territories, are either covered or have access to basic hospital and medicare coverage in their province of domicile. It is the students' responsibility to see that they are in good standing with the Provincial Hospital Insurance Commission in the province of origin. If the province requires monthly payments, the students must make certain they are properly enrolled and maintain payments.

Full-Time Non-Canadian Students

Students not eligible for basic Canadian hospital and medicare coverage must be insured by the Blue Cross comprehensive health and hospital plan which has been arranged through the Students' Representative Council. For information on the premiums, please consult the Financial Information section of this Calendar.

Students who provide proof at the time of registration that they have the equivalent to Nova Scotia's Medical Services Insurance (M.S.I.) are exempt from the non-Canadian portion of the University's compulsory comprehensive coverage.

2. Part-time Students

Part-time students are not eligible for either the extended or the comprehensive health plan.

Cultural Activities

Performing Arts

The performing arts program at Saint Mary's University brings a cross-section of excellent musicians and entertainers to the campus each season. From chamber orchestras to modern jazz, concerts provide musical adventure for every preference.

Artist-in-Residence

The Artist-in-Residence program is designed to cover the spectrum of the arts with the intention of developing a varied program for both the University and the community at large. Not necessarily limited to musicians and the fine arts, the program is designed on a broad scale and intended to enrich the lives of both students and citizens.

Saint Mary's Artist-in-Residence program has included such outstanding artists as Israel-born pianist Shulamit Ran; bassoonist George Zukerman; Halifax painter C. Anthony Law, and Cape Breton native and New York based vibraphonist Warren Chiasson; and presently, watercolorist and printmaker J. R. Leighton Davis, who is also Curator/Director of the Saint Mary's Art Gallery.

In the past the artists have conducted instructional sessions with the University's music program, workshops for community musicians and artists, the local school music program, and various performing sessions including public concerts.

Art Gallery

Designed and constructed to National Gallery of Canada standards, Saint Mary's University gallery is located on the ground floor of the Ignatius Loyola Building.

Opened in October 1971, the gallery was the first University Art Gallery in Halifax. The initial exhibition consisted of sculptures and graphics by Eskimo artists, and since then approximately 160,000 visitors have attended 700 exhibitions and other cultural events.

The gallery also sponsors lectures and slide demonstrations on the history of Canadian Art, and life drawing and painting classes by the University Artist-in-Residence.

The Halifax public as well as the University community has been able to view the work of internationally known artists at Saint Mary's University; for example: an exhibition of works by George Roault, Wilhelm Webels, Otto Dix, and Harold Town; an exhibition of contemporary Christian Art, *Ars Sacra '77*, which included works by Graham Sutherland, Bernard Buffet, Salvador Dali, Carol Fraser, and Bruno Bobak; an exhibition, *In Memoriam*, of the works of Miller G. Brittain; for the first time in Canada, an exhibit by Friedensreich Hundertwasser, the Austrian Master of Ornamentalism; and, more recently, a display of primitive art and artifacts from Papua, New Guinea.

A permanent collection of Nova Scotia pottery exists at Saint Mary's University Art Gallery in which potters such as Alma and Ernst Lorensen and Max Roulston are represented. The University Art Collection has been made possible through the generosity of private donors and organizations who have enjoyed the facilities of the Art Gallery.

Student Employment Centre

Saint Mary's administers a Student Employment Centre to assist students in finding full-time and part-time employment.

In addition to professional guidance to graduate and undergraduate students, the Employment Centre provides current labour market news, career information, and assistance in preparing resumes, preparing for interviews, and completing job applications.

Personal interviews are also arranged with representatives from many companies and organizations who visit the campus each year to meet prospective employees. On-campus interviews generally begin in early October; hence students are encouraged to register early.

Students are also encouraged to visit the Centre regularly as job opportunities are posted regularly regarding part-time summer and casual employment.

The Employment Centre is located on the 4th Floor of the Student Centre and is open from 9:00 a.m. to 5:00 p.m.

University Residences

The University does not require students to live in residence; however, it highly recommends residence life and encourages all first year students to reside on campus. Living in residence puts you at the centre of University life. Friends, activities, advice and support are right there on your doorstep. Saint Mary's University is committed to providing a living environment that is comfortable, secure and conducive to the academic and personal growth of students. The residences are much more than a place to eat, sleep and study; they are a great place to develop lasting friendships and share social and educational activities with people of different backgrounds.

There are three residences. The **Edmund Rice Building** is co-ed and has 17 floors of apartments, each with two double bedrooms, kitchen, bathroom and living room. Students in Rice can either opt for a meal plan or cook for themselves. The **Loyola Residence** houses men and women and has 19 floors with single and double rooms in suites for six with shared bathrooms. Students must purchase a meal plan. Vanier House is a women's residence which provides accommodation in suites containing two double and two single rooms with shared washrooms. There is a common lounge on each floor. Residents must purchase a meal plan. All residence rooms have basic furniture and drapes; students need only bring the personal items that will turn a room into a home.

Family Housing (Ignatius Loyola Residence)

One and two bedroom unfurnished apartments are available for student families on a 12-month lease basis. These are available to married students, single parents, graduate and mature students. Further information is available from the Director of University Residences.

Application for Residence Accommodation

Further information and applications for residence are available from the Director of University Residences.

Fees for accommodation in each of these residences and for various food plans are specified in the Financial Information section of this Calendar.

Food Service

The University provides a complete food service program during the academic year. Food Service outlets include the Residence Cafeteria, Student Centre Cafeteria, Colonnade, and Mini-Mart.

Meal Plans

Residents of Vanier House and Loyola Residence are required to purchase a meal plan.

The Declining Balance Plan

The Declining Balance Plan features a computerized meal card with a declining balance. With each food purchase you make, the amount will be deducted from your account balance. You may receive an update of your balance at any cashier outlet.

The Residence Dining Room features an a-la-carte food service program. At other outlets on campus service is a-la-carte. Fees for meal plans are specified in the Financial section of the Calendar. (Meal plan features are reviewed annually in consultation with students and hence may vary from year to year.)

Information describing the Declining Balance Meal Plan is sent to residence students each summer. Inquiries may be directed to the Food Services Office at 420-5604.

International Student Advising

The Director of Student Services provides information and referral services in response to questions or problems international students may encounter during their adjustment to a new country and university.

Student Discipline

a. Student Behavior

Saint Mary's University, in accepting students, takes it for granted that they are prepared to engage seriously in the pursuit of learning within an ordered academic institutional environment. Rules and regulations which affect student behavior are intended to ensure that the quality of life of students and of those associated with them in the work of the University is respected and preserved.

The largest measure of responsibility for maintaining standards of conduct rests with the students themselves. The University reserves the right, however, to counsel, admonish, limit the activities of, impose penalties on, or dismiss any student or group of students

whose conduct violates normally accepted standards of civilized behavior or is in conflict with the University's objectives, policies, rules and regulations.

b. Discipline System

The Senate-approved disciplinary system operates under the general responsibility and direction of the Director of Student Services. Several administrative officers of the University receive complaints, examine the evidence, and make decisions with respect to the disposition of cases. If there are appeals against these decisions, they are heard by the three-person Student Disciplinary Appeal Board. Decisions can involve monetary fines, suspensions, or expulsion from the University.

c. Campus Security Force

The maintenance of order and conduct at extracurricular functions is the responsibility of the Saint Mary's Campus Security Force. The Force is composed of full-time and part-time students and is headed by a chief, deputy chief, and six team captains. Students wishing to be members of this force must be of sound academic standing, of a general demeanour consistent with the normally accepted standards of conduct required of students at the University. The force is under the general supervision of the Director of Student Services of the University. Applications for Campus Security Force membership are to be directed to the Director's office.

The Campus Security Force provides students with an opportunity to obtain valuable experience in the field of crowd and citizen management and funds to augment their education costs.

Saint Mary's University Students Association

Incorporated in 1966, the Saint Mary's Students Association (SMUSA) is the official representative organization of the students of Saint Mary's University. Every student is automatically a member of the Association.

The goal of the Association is to promote and represent the interests of its membership. The Association seeks to foster understanding and fellowship among all sectors of the University community as a whole. It also coordinates artistic, literary, educational, social, and recreational activities for Saint Mary's students.

The Association is governed by a sixteen member Student's Representative Council. The Association organizes scores of activities for students as well as provides a service and representative base for its members.

The extracurricular organizations for students are recognized by the University. Students who represent the University in any public activity - dramatics, debating, oratorical contests, or athletic competition - or who hold office in any student organization, must be in good academic standing at the time of their election or appointment.

A detailed description of student societies is available in the Student Handbook which is distributed by the Students' Representative Council in September.



Saint Mary's
Home of the Huskies

**Academic Officers
and Faculty**

Section

9

Academic Officers and Faculty

Academic Officers

Vice-President (Academic and Research)

J. Colin Dodds, B.A. (Open University), B.Sc. (Hull), M.A., Ph.D. (Sheffield), Professor of Finance and Management Science

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Michael J. Larsen, B.A. (Saint Mary's), M.A. (Dalhousie), Ph.D. (Toronto), Dean and Professor of English

Donald J. Naulls, B.A. (Hons.), M.A. (Wilfrid Laurier), Ph.D. (York), Associate Dean and Assistant Professor of Political Science

Faculty of Commerce

A. Scott Carson, B.Comm. (Mount Allison), B.Ed., M.A. (Dalhousie), Ph.D. (London), Dean and Professor of Management

Janet Gregory, B.A.Sc. (Waterloo), B.Ed., M.Sc., Ph.D. (Dalhousie), Associate Dean and Associate Professor of Finance and Management Science

Faculty of Education

Terry Piper, B.A., M.A. (New Hampshire), Ph.D. (Alberta), Dean and Professor of Education

Faculty of Science

David H. S. Richardson, B.Sc., M.Sc. (Nottingham), M.A. (Trinity College, Dublin), D.Phil. (Oxford), Dean and Professor of Biology

Faculty

Ahooja-Patel, Krishna, B.A. (Aligarh), Ph.D. (Geneva), Adjunct Professor of International Development Studies

Akbari, Ather H., B.Sc., M.B.A. (Karachi), M.A., Ph.D. (Simon Fraser), Assistant Professor of Economics

Amaratunga, Carol A., B.A., M.Sc. (Guelph), Ph.D. (Toronto), Adjunct Professor of International Development Studies

Amirkhalkhali, S. Samad, B.Sc. (National University of Iran), M.A., Ph.D. (Dalhousie), Assistant Professor of Finance and Management Science

Amirkhalkhali, Saleh S., B.A. (Shiraz), M.A., Ph.D. (Dalhousie), Associate Professor of Economics

Ansell, Robert N., B.A. (Cambridge), Ph.D. (Glasgow), Assistant Professor of Philosophy

Ansong, Granville, B.A. (Hons.) (Ghana), M.A. (Queen's), M.Acc. (Waterloo), Ph.D. (Queen's), Assistant Professor of Accounting

Archambault, Jeffrey J., B.Sc., M.Sc. (Central Michigan), Ph.D. (Michigan State), C.P.A., Assistant Professor of Accounting

Archambault, Marie E., B.B.A. (Saginaw Valley State), Ph.D. (Michigan State), Assistant Professor of Accounting

Armstrong, Stanley A., A.B. (Brown), B.D. (Harvard), M.A., Ph.D. (Yale), Associate Professor of Religious Studies

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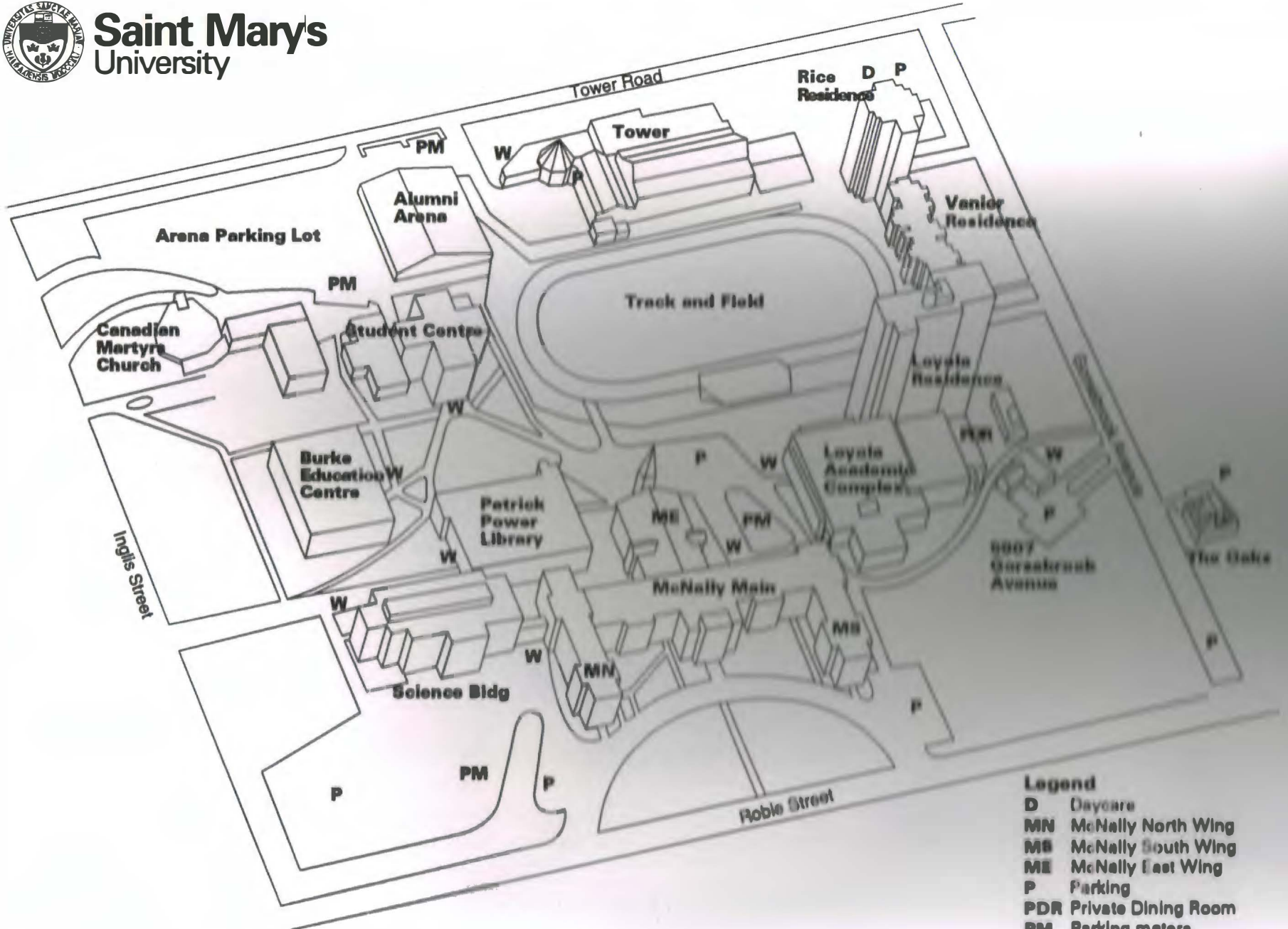
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- D** Daycare
 - MN** McNally North Wing
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 - ME** McNally East Wing
 - P** Parking
 - PDR** Private Dining Room
 - PM** Parking meters
 - W** Wheelchair entrance
 - WP** Wheelchair parking

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