

Academic Calendar of Saint Mary's University

2004-2005

Saint Mary's University
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Canada
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Information about Saint Mary's, including this *Academic Calendar* is available on the World Wide Web. Saint Mary's University Home Page is found at <http://www.smu.ca>; the Registrar's Home Page at <http://www.smu.ca/registrar>.

A Brief Guide to Using This *Academic Calendar*

Some of the courses described in this *Calendar* will not be offered in 2004-2005. Students are therefore advised to consult the academic timetable for those courses which will be taught in the 2004-2005 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 the University's *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 many 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
 Diploma in Forensic Sciences
 Master of Arts (in Atlantic Canada Studies, Criminology, *Education, History, International Development Studies, Philosophy, Women's Studies)
 Master of Business Administration
 Master of Business Administration - CMA
 Master of Finance
 Master of Management - Cooperatives and Credit Unions
 Executive Master of Business Administration
 *Master of Education
 Master of Science (in Applied Psychology, Applied Sciences, Astronomy)
 Certificates of Honors Equivalency
 Certificate of Chinese Studies
 Certificate in Proficiency in French
 Certificate in German Language and Culture
 Human Resource Management Certificate Program: Management Option
 Human Resource Management Certificate Program: Psychology Option
 Certificate of Linguistic Studies
 Certificate of Japanese Studies
 Certificate in Spanish Language and Hispanic Culture
 Graduate Diploma in Criminology
 Graduate Diploma in International Development Studies
 Doctor of Philosophy in Business Administration (Management)
 Doctor of Philosophy in Astronomy

After deciding on the academic program in which they are interested and studying the requirements of that 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 instructors. 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.

*currently not available

Inquiries related to specific areas should be directed to the officers indicated below:

Recruitment
 Director: 902-420-5070
 Fax: 902-420-5073
 Web Address:
monica.wood@smu.ca

Academic Policies and Records
 Registrar: 902-420-5582
 Fax: 902-420-5151
 Web Address:
www.smu.ca/registrar

Admission of Students
 Director of Admissions: 902-420-5415
 Local Fax: 902-496-8100
 International Fax: 902-496-8160
 Web Address:
www.smu.ca/administration/admiss/admiss.html

Continuing Education:
 Dean: 902-420-5492
 Fax: 902-420-5103
 Web Address:
www.smu.ca/conted

Alumni Affairs
 Director of Alumni: 902-420-5420
 Fax: 902-420-5140
 Web Address:
www.smu.ca/alumni

Bookstore
 Manager: 902-420-5562
 Fax: 902-420-5006
 Web Address:
www.smu.ca/administration/bookstore

Fee Information
 Director of Financial Services: 902-420-5464
 Fax: 902-496-8184
 Web Address:
www.smu.ca/administration/businessoffice/

Library

Circulation 902-420-5547
 Fax: 902-420-5561
 Web Address:
www.smu.ca/administration/library

Residence Accommodations

Director of University Residence:
 single housing: 902-420-5598
 family housing, graduate housing: 902-420-5589
 Fax: 902-496-8107
 Web Address:
www.smu.ca/administration/resoffic/default.html

Scholarships and Student Loans

Financial Aid Counselor: 902-420-5609
 Fax: 902-420-5125
 Web Address:
www.smu.ca/administration/studentservices/html/financialaid.html

Student Affairs

Director of Student Services: 902-420-5615
 Fax: 902-420-5125
 Web Address:
www.smu.ca/administration/studentservices

Employment and Job Placement

Manager/Student Employment Office: 902-420-5499
 Fax: 902-420-5125
 Web Address:
www.smu.ca/administration/studentservices/html/student_employment.html

Summer Sessions

Dean of Continuing Education: 902-420-5492
 Fax: 902-420-5103
 Web Address:
www.smu.ca/conted

**The Effects of Hurricane “Juan”
 Sunday, 28 September 2003**



Damage in residential area on Robie Street, across from Saint Mary’s University.

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President J. Colin Dodds discusses admission to Saint Mary’s University with the Headmaster at Saltus Grammar School, Bermuda.

A MESSAGE FROM THE PRESIDENT...

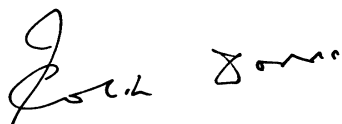
*On behalf of my colleagues, I wish to thank prospective and new students for considering Saint Mary's University in your academic career plans. For returning students, welcome back and thank you for the confidence you expressed in choosing Saint Mary's as **your** University. Education is a critical investment for you and the future of our society and we take our role seriously in providing you with the highest return on your investment.*

*As this **Academic Calendar** will demonstrate, we offer a broad range of academic programs, and are extending the number of graduate programs to add to those currently available. In addition, we offer many interdisciplinary programs and we encourage students to study for minors in other faculties to equip them with a broad range of knowledge and skills. Innovation has always been a hallmark at Saint Mary's and we are continuously upgrading our curricula. Saint Mary's has a number of exchange agreements and opportunities to study abroad, for example, in France, Germany, Mexico, the U.K. and Australia.*

We do care about our students and want to help you achieve your full potential. Recently, we established a Centre for New Students to assist in the early days of transition to university. Give the Centre staff a call at (902) 491-8691 if you feel they could help you. We also have a full range of Student Services on campus, including counselling, peer support, the Atlantic Centre for Support of Students with Disabilities and a Medical Centre. There are a number of student societies to join too. The Tower, arena and stadium provide opportunities for involvement in intramurals and varsity athletics as well as staying in shape!

Saint Mary's is a university very much on the move. You will find academic excellence in our programs and instructors – our faculty is rated 1st in the country in the latest Maclean's ranking for faculty with Ph.D's. There is vibrancy, a sense of community and commitment on our campus. I encourage you to read our Academic Calendar and visit our website (www.smu.ca) to learn more about us.

Thank you again for investing in your studies at Saint Mary's University and good luck.

A handwritten signature in black ink, appearing to read "J. Colin Dodds". The signature is fluid and cursive, with a large initial "J" and a long, sweeping underline.

J. Colin Dodds, Ph.D.
President
(colin.dodds@smu.ca)

General Information

**History
Calendar of Events
Board of Governors and Senate**

Section

1

General Information

More Than Two Hundred Years of History

Since its founding in 1802, Saint Mary's University has developed into a modern, urban university with more than 8,500 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. In 1952, the "College" became a "University". 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 coeducational. 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 (full-time) formed the Faculty Union which has become an influential voice in the affairs of the University. Part-time faculty members became a separate bargaining unit in 1996.

Statement of Objectives

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

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

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 three 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. Master's programs are offered in all faculties in such specific subject areas as Atlantic Canada Studies, Criminology, History, International Development, Women's Studies, Astronomy, Applied Psychology, and Business Administration. In November 1999 a doctoral program in Business Administration (Management) was officially launched and in 2003 Astronomy. Now a publicly accessible, coeducational institution, functioning with a sense of its tradition, the University also offers pre-professional programs in law, medicine, engineering, theology, dentistry, architecture. 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 several decades this commitment to academic and research excellence has seen the number of full-time faculty with doctoral degrees rise to over 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 decade, sponsored contract and academic research has increased markedly from \$250,000 to more than \$5,000,000 per year. This significant increase reflects the University's firm belief that excellence in both teaching and research is 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 and the Office of Instructional Development have assisted faculty members by offering workshops on instructional techniques and innovations in teaching methodology. 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 Centre in downtown Halifax; in Dartmouth; as well as in several other communities. Saint Mary's boasts residence facilities for single and married students, a Students 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 one of Atlantic Canada's most modern recreation and fitness complex. The newest structure on campus is the Sobey Building, officially opened in November 1998. It provided much needed additional classrooms with the very latest in technology and is home to the Sobey School of Business. 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 Geochemical Centre as well as the Gorsebrook Research Institute which contributes to the understanding of our regional culture within a national context. Our 'internationalization' has seen formal teaching and research agreements signed with universities around the world including China and Japan as well as Mexico and The Republic of The Gambia. The Atlantic Centre of Support for Students with a Disability has grown remarkably over the last several years and 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 Mexico. 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".

Beginning officially on 24 May 2002, the University's Bicentennial Anniversary was celebrated with a year long series of special events, undertakings, and new initiatives which will position the institution strategically for the twenty first century.

The Academic Plan: Framework Document

A major undertaking of the past year has been the development and articulation of an ambitious Academic Plan which essentially outlines the University's future. Supporting existing programs, protecting the University's core values, and providing clear strategic directions are central elements of this document entitled *Academic Plan: Framework Document*. The University's motto: "What you do, do well" was the guiding principle of the Plan.

The Academic Plan is the result of over a year of plenary sessions, research, and consultations with all levels of the University's many constituencies. The dimensions of Saint Mary's activities are highlighted under four sections:

- History and Character
- Key Success Factors
- Building on Strength
- Meeting Challenges and Opportunities

"The plan describes the scope of activities which comprise our institutional agenda and emphasizes the mutually reinforcing nature of these endeavours," says Dr. Terry Murphy, Saint Mary's Vice President, Academic and Research, who led the process of developing the Academic Plan. "Working with a clearly articulated sense of academic priorities was crucial to the development of the Academic Plan," he says. "We wanted to ensure that academic concerns would drive, rather than be driven by, the process." Dr. Colin Dodds, President of Saint Mary's says, "Academics are at the core of what we do, research, teaching, service and everything else has to support that."

Dr. Dodds describes the Academic Plan as a partnership within the Saint Mary's community. "Through a consensus in the academic areas on direction, in consultation with other areas of the University we have ended up with a shared vision and will share in the implementation of the plan." Dr. Dodds says that the Academic Plan will provide a roadmap for the future. "The Academic Plan outlines what we will need to sustain us along the journey, our direction and how long it will take." He says that it will also establish markers of the University's progress and help to assess performance. "To simply say that we have a plan is not enough, as implementation moves forward we will be revising the plan and continue to go back to it," says Dr. Dodds. "What we are doing is strategizing and not being rigid so that we can deviate from the plan. It requires a fluidity because things can change. The dynamism and flexibility of the plan will allow us to fine tune it as we go along."

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 Dalhousie University (formerly DalTech and prior to that 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, has been in suspension in light of the association between the Toronto School of Theology and Regis College. At the beginning of the 21st century, Saint Mary's University and the Atlantic School of Theology entered into a formal Memorandum of Agreement concerning future co-operation and new initiatives. This promises many exciting new developments, including a Centre for Ethics as well as co-operative ventures with faculty and students.

Privacy Legislation

(1) Freedom of Information and Protection of Privacy Act (FOI-POP)

On 23 November 2000, the Freedom of Information and Protection of Privacy Act (FOI-POP) became applicable to all post-secondary institutions in Nova Scotia. The purpose of this Act is to allow any person a right of access to the records of the University, to control the manner in which the University may collect information from individuals, to control the use that the University may make of that information, to control its disclosure of that information, to allow individuals the right of access to information about themselves, to allow individuals a right to request corrections to their personal information, and to provide for an independent review of decisions of the University made under this Act and the resolution of complaints under this Act.

Saint Mary's University creates and collects information for the purpose of admission, registration, and other activities directly related to its educational programmes. All applicants for admission are advised that the information they provide, and any other information placed into the student record, will be protected and used in compliance with Nova Scotia's Freedom of Information and Protection of Privacy Act. Additional information on the release of data on students is delineated below in Section 2, academic regulations 32.

(2) Personal Information Protection and Electronic Documents Act (PIPEDA)

On 1 January 2004, the Provincial Private Sector (including post-secondary institutions) became subjected to PIPEDA. In an era in which technology increasingly facilitates the circulation and exchange of information, its purpose is to establish rules to govern the collection, use and disclosure of personal information in a manner that recognizes the right of privacy of individuals with respect to their personal information and the need of organizations to collect, use or disclose personal information for purposes that a reasonable person would consider appropriate in the circumstances.

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 Greek 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, emblematic of Nova Scotia's Scottish heritage.

University Colors and Mascot

The official colors of the University are maroon and white.

In 1960 Saint Mary's University chose Huskies as the name for their sports teams. The Siberian Husky became the official mascot for qualities which paralleled the teams' motto, In Pursuit of Excellence. Pound for pound, the Siberian Husky is the strongest draft dog in existence. A versatile and gentle dog, the Husky is the perfect example of tenacity, drive, and loyalty. Like their namesake, the Saint Mary's Huskies strive for gold. They are willing to work hard and are always attempting to achieve their fullest potential.

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.

The Presidential Medallion of Office

On 22 October 2000, a Medallion of Office was officially presented to the University and used for the first time at the Installation of Dr. J. Colin Dodds as President. Designed and crafted by James Bradshaw and Bruce Babcock of James Bradshaw Jewellery Design Studios, Inc., Halifax, its centre is a University Gold Medal, traditionally awarded to the top graduating students. It symbolizes the University's deep commitment to academic excellence. It is surrounded by contrasting sterling silver, representing the diversity of the institution's students and of its academic programs. It was generously presented by Mary Eileen Donahoe and her family as a memorial to the late Senator Richard A. Donahoe, Q.C., K.S.G., LL.D.(Hon.), a member of one of the earliest Boards of Governors, in recognition of his career of public service and his love of Saint Mary's.



The Crest of Saint Mary's University. See Description on page 9 of this *Calendar*.

ACADEMIC CALENDAR OF EVENTS

2004-2005

2004

July
2 (Friday) Deadline for filing an Application for Graduation for Fall Convocation, 2004.

Registration

Details on registration for the 2004-2005 academic year will be published in the *Registration Book, 2004-2005*, published in mid-July 2004.

September

8 (Wednesday) **CLASSES BEGIN.**

17 (Friday) Last day for filing Applications for Graduation for degrees, diplomas and certificates to be awarded at Spring Convocations, 2005.

21 (Tuesday) Last day for registering and changing full (i.e., designated .0) and first semester (i.e., designated .1) courses.

30 (Thursday) Last day for final payment of first semester tuition fees.

October

11 (Monday) Thanksgiving Day. No classes.

November

11 (Thursday) Remembrance Day. No classes.

12 (Friday) Last day for withdrawing, without academic penalty, from a first semester course (.1) or a full course (.0) taught only in the first semester (Reference: Academic Regulation 16).

14 (Sunday) Fall Convocation, 2004, at the World Trade Centre.

December

3 (Friday) Last day of classes in first semester.

4 (Saturday) Study Day. No classes.

6 (Monday) –
20 (Monday) Formal final examinations in first semester courses (.1) and formal mid-year examinations in full year courses (.0). **Note:** Subject to change should it not be possible to schedule all formal examinations in the designated timeframe.

8 (Wednesday) Patronal Feast of the University. Traditionally, no examinations are scheduled on this day.

20 (Monday) First semester ends. **Note:** Subject to change should it not be possible to schedule all formal examinations in the designated timeframe.

2005

January

4 (Tuesday) **CLASSES RESUME.**

4 (Tuesday) –
18 (Tuesday) (a) Registration for students not previously registered for the 2004-2005 academic year.
(b) Change of Registration.

14 (Friday) Last day for withdrawing, without academic penalty, from a full course (.0) taught over both semesters (Reference: Academic Regulation 16).

15 (Saturday) Last day for final payment of second semester tuition fees.

12 Calendar of Events

February	
21 (Monday) – 26 (Saturday)	Winter Break. No classes.
March	
21 (Monday)	Last day for withdrawing, without academic penalty, from a second semester course (.2) or a full course (.0) taught only in the second semester (Reference: Academic Regulation 16).
25 (Friday) - 27 (Sunday)	Easter Break. No classes.
28 (Monday)	Classes resume.
April	
13 (Wednesday)	Last day of classes in second semester.
14 (Thursday)	Study Day. No classes.
15 (Friday) to 4 May (Wednesday)	Formal final examinations in second semester courses (.2) and in full courses (.0) begin. Note: Subject to change should it not be possible to schedule all formal examinations in the designated timeframe.
May	
4 (Wednesday)	(a) Second semester ends. (b) Formal final examinations end. Note: Subject to change should it not be possible to schedule all formal examinations in the designated timeframe. (c) Last day for potential graduates to notify the Associate Registrar of being “in absentia” at Spring Convocations, 2005.
T.B.A.	Spring Convocations, 2005, at Halifax Metro Centre.
July	
2 (Friday)	Last day for filing applications for degrees, diplomas, and certificates to be awarded at Fall Convocation, 2005.

Each year, Saint Mary’s University offers two summer sessions. For the year 2004, the dates are: First Session, 10 May to 25 June with the split for .1 and .2 occurring on 2 June/3 June. Second Session, 5 July to 20 August with the split for .1 and .2 courses on 27 July/28 July. Details are available from the Division of Continuing Education.

Board of Governors and Senate

Board of Governors

Chairperson

Mr. Paul Dyer

Vice-Chairperson

Mr. David Grace

Members Ex-Officio

Chancellor

Archbishop Terrence Prendergast, S.J.

Vice-Chancellor

TBA

President

Dr. J. Colin Dodds

Vice-President, Academic and Research

Dr. Terrence Murphy

Vice-President (Administration)

Ms. Gabrielle Morrison

Vice President (Finance)

Mr. Lawrence Corrigan

Members Appointed by the Roman Catholic

Episcopal Corporation

Mr. Brian Downie to July 31, 2005

Ms. Helen Gillis to July 31, 2004

Ms. Karen Oldfield to July 31, 2006

Members Elected by the Alumni Association

Mr. Robert (R.B.) Cameron to July 31, 2006

Mr. Patrick Crowley to July 31, 2005

Ms. Sarah Dennis to July 31, 2006

Mr. Rod Doiron to July 31, 2004

Mr. Garry Pye to July 31, 2006

Ms. Michele Wood-Tweel to July 31, 2005

Members Elected by the Academic Staff

Dr. Paul Bernard to July 31, 2006

Dr. Jaroslav Dostal to July 31, 2005

Dr. Edna Keeble to July 31, 2004

Dr. Corey Pye to July 31, 2006

Dr. Robert Singer to July 31, 2004

Dr. David Turner to July 31, 2005

Members Elected by the Students

Mr. Chris Alders to July 31, 2004

Mr. Jon Kincade to July 31, 2004

Mr. Tyler MacLeod to July 31, 2004

Mr. Rob Parker to July 31, 2004

Ms. Chris Richards to July 31, 2004

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

TBA

Members Elected by the Board of Governors

Mr. Paul Dyer to August 31, 2006

Dr. Eligio (Lee) Gaudio to July 31, 2006

Mr. David Grace to July 31, 2004

Mr. Thomas (Tim) C. Moore to 28 March, 2005

Senator Wilfred Moore, Q.C. to July 31, 2006

Mr. Paul Sobey to July 31, 2004

Mr. Fred Smithers, O.C. to July 31, 2005

TBA

Members Appointed by the Lieutenant-Governor in Council

Mr. John Fitzpatrick to November 30, 2004

Mr. Lawrence Hood to 31 October 2004

Observer Elected by Support Staff

Ms. Donna Filek to July 31, 2004

Academic Senate

Chairperson

Dr. Donald J. Naulls

Vice-Chairperson

Dr. Geraldine Thomas

Members Ex-Officio

Dr. J. Colin Dodds, President

Dr. Terrence Murphy, Vice-President, Academic and Research

Dr. Esther Enns, Dean of Arts and Acting Dean of Education

Dr. Alan Miciak, Dean of Commerce

Dr. David H. Richardson, Dean of Science

Dr. William Jones, Acting Dean of Graduate Studies and Research

Dr. Elizabeth A. Chard, Registrar

Mr. Keith Hotchkiss, Director of Student Services

Ms. Madeleine Lefebvre, University Librarian

Members Elected

To August 2006

Dr. Paul Bernard

Dr. Jaroslav Dostal

Dr. Donald Naulls

Dr. Shripad Pendse

Dr. Cory Pye

To August 2004

Dr. Elissa Asp

Dr. Robert Singer

Dr. Geraldine Thomas

Dr. David Turner

Dr. Madine VanderPlaat

To August 2005

Dr. Paul Bowlby

Dr. Margarethe Heukaeufer

Dr. Robert Konopasky

Dr. Eric Lee

Dr. Danika van Proosdij

Student Senators

Mr. Chris Alders

Mr. Jon Kincade

Mr. Tyler MacLeod

Mr. Rob Parker

Ms. Chris Richards

Senate Office

Ms. Heather Davis



Archbishop T. Prendergast, S.J., congratulates Dr. K. Ahooja-Patel at Fall Convocation 2003.



Archbishop Emeritus A. E. Burke and John Beliveau at the Special Convocation on 4 October 2001.

**Student Recruitment
and
Admission**

**Academic Regulations
and
Information**

Registration

Section

2

Student Recruitment

Student Recruitment manages/markets Saint Mary's programs and services specifically related to the recruitment of students. The department is responsible for planning, coordination and implementing a comprehensive, timely and multi-faceted marketing and information program designed to encourage prospective (domestic and international) students to apply for admission to the University.

For further information contact:

Director, Student Recruitment
Saint Mary's University
Halifax, Nova Scotia B3H 3C3
Telephone (902) 496-8280
Fax: (902) 420-5073
E-mail: recruitment@smu.ca

Student Recruitment organizes **CAMPUS TOURS** which are normally available:

Monday 10:00-11:30
Wednesday 1:30-3:00
Friday 10:00-11:30
Saturday 10:00-11:30

Please call (902) 420-5682 or e-mail campustours@smu.ca two weeks in advance to book your campus tour.

International Recruitment
Saint Mary's University
Halifax, Nova Scotia B3H 3C3
Telephone: (902) 420-5128
Fax: (902) 420-5073
E-mail: international@smu.ca

Admission

Centre for New Students - New School, New People, New Place

Centrally located in the Admissions Office, Room MM 101, McNally Building, the Centre for New Students welcomes all new and prospective students. Students can find answers to their questions, be linked with the appropriate academic departments and support services, and learn more about what the Saint Mary's community has to offer. Students are welcome to drop by to chat or to take advantage of the many brochures, pamphlets and other publications designed to help with the transition to university life at Saint Mary's. Students can drop by the Admissions Office or call 902-420-5415.

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

Director, Admissions and Centre for New Students
Saint Mary's University
Halifax, Nova Scotia B3H 3C3

Telephone: (902) 420-5415
Fax: (902) 496-8100
e-mail: admissions@smu.ca;
international@smu.ca

Helpful Numbers

- (i) To arrange a personal interview telephone: (902) 420-5415
- (ii) To inquire about the status of your Application for Admission telephone: (902) 420-5111

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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 international 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. Applications received after these deadlines will be considered on an individual basis. If an application cannot be processed due to time constraints, it will be considered for the next available session. Enclose provincial certificates or other accredited school certificates giving final grades or marks, and a processing fee of \$40.00 (Canadian) with the application form.

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 1a.

(ii) Former Saint Mary's University students seeking to enrol 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 or who attended another post-secondary institution since last attending Saint Mary's, must apply for re-admission to the Director of Admissions (see Academic Regulations). The deadlines found in 1a above.

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.

f. All applicants will automatically be issued a S.A.T.U.R.N. (Secure Access to University Restricted Network) PIN under the following terms of personal responsibility:

- (i) understanding the requirements for the privacy and confidentiality of the PIN and account;
- (ii) being familiar with the limitations and timelines of the information accessed from this source (and any revisions thereto); and
- (iii) the right and responsibility of the University:
 - (a) to revise this information and its own regulations and guidelines; and
 - (b) to withdraw students' right to access their account for due cause.

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 time frame must reapply for admission. Admission is not guaranteed.

(ii) Definitions:

- (a) "Satisfactory grades" means an average in five subjects of 65% and no mark below 60%.
- (b) "Academically recognized subjects" means subjects offered in the university preparatory program of an approved school system.

(iii) Early Admission

Early Admission Category 1:

Students who have achieved an overall average of 80% or above in grade 11 and are registered in grade 12 courses, that satisfy the requirements of the academic program to which they are applying, will be offered early admission. Admission would be conditional upon maintaining "satisfactory" final grade 12 results in June.

The deadline for application is **November 1**. Students who have submitted an application, complete with high school transcript, will receive a decision no later than December 31. Please use the regular application form.

Early Admission Category 2:

Students who have achieved an overall average of 70% or above in grade 11 and who have achieved an overall average of 70% or above in mid first semester grade 12 courses, that satisfy the requirements of the academic program to which they are applying, will be offered early admission. Admission would be conditional upon maintaining "satisfactory" final grade 12 results in June.

The deadline for applications is **December 15** and students who have submitted an application, complete with high school transcript, will receive a decision no later than February 15. Please use the regular application form. The Admissions Office will determine the appropriate Admission Category based upon a student's marks and the date of application. Applications can be obtained through our website <http://www.smu.ca>.

Note: Applicants who are not admitted under the provisions of early admission but whose final first semester grade 12 results are acceptable will be offered regular admission. Admission would be conditional upon maintaining "satisfactory" final grade 12 results in June.

(iv) Entrance Scholarship Program

Please refer to the Student Awards & Financial Aid Programs for information on Entrance Scholarships in Section 6 of this *Academic Calendar*.

b. Nova Scotia

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

- (i) Faculty of Arts: English 12 academic plus four additional Grade 12 academic courses, one of which may be an approved open course;
- (ii) Faculty of Science: English 12 academic, Pre-Calculus Mathematics, two Grade 12 academic science courses, plus one additional Grade 12 academic course or approved open course;
- (iii) Division of Engineering: English 12 academic, Pre-Calculus Mathematics, Physics 12 academic; Chemistry 12 academic, plus one additional Grade 12 academic course or an approved open course;
- (iv) Faculty of Commerce: English 12 academic, Pre-Calculus Mathematics or Academic Mathematics 11 and 12 or Advanced Mathematics 11 and 12, plus three other Grade 12 academic courses, one of which may be selected from approved open courses.

c. Quebec

In order to be considered for admission, students must complete one year of CEGEP and satisfy the specific subject requirements as noted above in 2b. Credits for students with two years of CEGEP will be assessed separately.

d. Ontario

In order to be considered for admission, students must complete the following specific subject requirements:

Faculty of Arts: English OAC or 4U plus 4 additional OAC and/or 4U (one 4M course may be substituted).

Faculty of Science: English OAC or 4U plus Math OAC (Algebra & Geometry - MAGOAC or Calculus - MCAOAC) or 4U (Geometry & Discrete Mathematics - MGA4U or Calculus - MCB4U) plus two OAC or

4U science courses plus one additional OAC or 4U course (one 4M course may be substituted).

Division of Engineering: English OAC or 4U plus Math OAC (Algebra & Geometry - MAGOAC or Calculus - MCAOAC) or 4U (Geometry & Discrete Mathematics - MGA4U or Calculus - MCB4U) plus Chemistry and Physics OAC or 4U plus one additional OAC or 4U course (one 4M course may be substituted).

Faculty of Commerce: English OAC or 4U plus Math OAC (Finite Mathematics - MFNOAC or Algebra & Geometry - MAGOAC or Calculus - MCAOAC) or 4U (Mathematics & Data Management - MDM4U or Geometry & Discrete Mathematics - MGA4U or Calculus - MCB4U) plus three additional OAC and/or 4U courses (one 4M course may be substituted).

e. Other Provinces

New Brunswick, Prince Edward Island, Newfoundland, Manitoba, Saskatchewan, Alberta and British Columbia: In order to be considered for admission, students applying from these provinces must complete Grade 12 and satisfy the specific subject requirements as noted above in 2b.

f. American School System

- (i) In order to be considered for admission, students must complete Grade 12 with 16 points. Students seeking admission to Arts must have 4 points in English and 12 points in other academic subjects. 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, and SAT score results.

g. General Certificate of Secondary Education (G.C.S.E.) Systems

To be considered for admission, students must complete one of the following certificates:

- the British or Caribbean General Certificate of Education (GCE)
- General Certificate of Secondary Education (G.C.S.E.);
- the Bermuda Secondary School Certificate (B.S.S.C.);
- the Hong Kong Certificate of Education (H.K.C.E.);
- the Malaysian Certificate of Education (S.P.M./H.S.C.), or
- the West African School Certificate (W.A.S.C.).

The student must have passes in at least five subjects, two of which must be at the advanced level, and satisfy the specific subject requirements as noted above in 2b.

h. International Baccalaureate (I.B.) and Advanced Placement (A.P.)

Students will be considered for admission providing they have successfully completed the requirements for one of these diploma programs and satisfy the specific subject requirements as noted above in 2b. Students with grades of 5, 6, or 7 on higher level I.B. courses are eligible to receive a maximum of three (3.0) advanced standing credits toward their undergraduate degree program.

Students with grades of 4 or 5 on A.P. courses are eligible to receive a maximum of three (3.0) advanced standing credits toward their undergraduate degree program.

A chart of Saint Mary's University courses equivalent to specific A.P. or I.B. courses is available from the Director of Admissions. It is also on the web.

Students from countries not mentioned in this list are required to have university-preparatory senior secondary or high school credentials. For complete details, please contact the Admissions Office.

i. 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 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) (minimum computerized TOEFL score 213); or
 - (ii) an aggregate grade of C or higher on the Cambridge First Certificate in English; or
 - (iii) a minimum score of 80 on the Michigan examination (MELAB); or
 - (iv) an average of 4.5 on the CanTEST administered by Saint Mary's University; or
 - (v) a minimum score of 6.5 on the International English Language Testing System (IELTS).
- One of the above examinations may be taken in almost any country of the world at almost any time of the year.
- (vi) Successful completion of English for Academic Purposes, Level Six, in the Intensive English Program, administered by Saint Mary's University.

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 or CAEL:
TESL Centre
Saint Mary's University
Halifax, Nova Scotia B3H 3C3 Canada
Phone: 902-420-5691
Fax: 902-420-5122
e-mail: tesl@smu.ca
- (v) For the IELTS:
IELTS Scheme Officer
University of Cambridge Local Examinations Syndicate
1 Hills Road
Cambridge UK
CB1 2EU

Students whose first language is not English should note Academic Regulation 23.

Note: International students on visas, student authorization, student permits, 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.

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, downloading off the web, or visiting:

Admissions Office
Room 101, McNally Building
Saint Mary's University
Halifax, Nova Scotia, B3H 3C3
Telephone: (902) 420-5415
Fax: (902) 496-8100
e-mail: admissions@smu.ca

(ii) Send the completed application form with an application fee of \$35.00; 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 (5.0) credits as non-degree students. If non-degree students wish to continue to study at Saint Mary's beyond five (5.0) 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 enrol 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. For all courses from non-Canadian post-secondary institutions, detailed course descriptions must be submitted before any advanced standing will be evaluated. Failure to report all institutions previously attended will result in dismissal from the University.

c. Admission as an Upgrading Student

Students who already hold a degree or professional certificate may enrol 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 1a. 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. The maximum number of courses in which a student is permitted to register under this admission category is five (5.0). The Dean of the Faculty in which a course(s) is offered may authorize an additional course(s) over this limit.

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 1a. Students are required to follow normal registration procedures and pay regular tuition fees. These students must meet any stated prerequisites for the course(s) for which they register.

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 1a. 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. It is the visiting student's responsibility to provide Saint Mary's Registrar with the complete mailing address of his/her home institution. If this is not done, final grades cannot be sent. 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 becomes invalid.

Academic Regulations

Philosophy Behind Academic Regulations

Academic regulations exist to assist the students in academic matters; to delineate the terms of students' contract with the University; and to maintain the integrity of the University's academic programs. While regulations enable the system to operate smoothly and effectively, they also facilitate growth, development, and responsibility in students. Saint Mary's makes every effort to ensure that advice on academic matters is available to its students, but in the final analysis it is the students' responsibility to seek such advice.

The information, regulations, and guidelines contained in this sections apply to all students at the University. Additional regulations pertaining to Masters' programs are in the Section 3 of the *Calendar*, while regulations pertaining to majors, honors, concentrations, and minors are found in Section 5.

Note: The University continuously reviews all of its academic regulations and hereby serves notice that significant revision(s) thereto may occur from time to time and will be duly promulgated officially.

Introductory Information

Glossary

This glossary explains some terms which are used frequently throughout this *Calendar*. It is intended as a quick-reference guide and may not necessarily offer the complete, official definitions and explanations which apply to the University's programs and the administration of its regulations.

Academic Audit (AA) A computerized checking of courses completed against the requirements for a student's academic program. An important aid for advising students. Sometimes referred to as a degree audit or academic progress report. This audit produces an unofficial document. Saint Mary's uses DAG's "Degree Navigator" for its academic audit. This web-based product is a powerful and important tool empowering students to be completely up-to-date as to their academic progress and to check out alternate academic program options.

Academic Year The period immediately following Labour Day in September to and including Convocation Day in May of the following year. It is comprised of two academic sessions or semesters.

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; and
Freshman: one who has 0.0 to 2.5 credits.
Sometimes referred to "year of study".

Add and Drop Period A designated timeframe during which students can add or drop courses for the current academic session without those dropped showing on their permanent academic record; sometimes referred to as a "change of registration period". See Academic Regulation 13.

Admission Acceptance of an applicant as a student.

Advanced Standing Credit granted for work completed at a post-secondary institution before admission to Saint Mary's University. See Academic Regulation 20.

Area of Concentration The main subject area of study [used in the Faculties of Arts and Science undergraduate programs and for the Master of Business Administration Program].

Attendance Status A student officially registered for at least 3 courses in a semester is considered to be "full-time", whereas a part-time student is registered for less than 3 courses in a semester. See Academic Regulation 1.

Audit Formal registration for a course(s) for which academic credit is not sought or granted. See Academic Regulation 2.

Baccalaureate Refers to an undergraduate degree awarded by the University upon successful completion of the requirements of a specific academic program.

Baccalaureate Service An interfaith service, traditionally held on campus prior to Spring Convocations.

Bursary A monetary grant based on financial need. See Section 6 of this *Academic Calendar*.

Chairperson Faculty member responsible for an academic area of study.

Concentration See "Area of Concentration" above.

Co-operative Education (Co-op) A method of learning in which students move between formal academic study terms on campus and work terms during which they are employed full-time by companies or institutions related to their academic field.

Corequisite A course which must be taken concurrently with another course which lists it as a corequisite.

Course A unit of study in a particular subject identified by a course title and a unique course number. The last digit of the course number 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).

Credit A unit of academic value earned within a particular program. 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.

	Credit values are used in the calculation of averages for academic standing and in the determination of the student's year of study or level within a specific academic program.	Preparatory Course	Nova Scotia Grade 12 equivalent course designed to prepare students for entry level course work and hence not counted toward any degree, diploma, or certificate. A preparatory course's number begins with zero (0).
Cross-Listed Courses	Courses which are listed under two different numbers in two different departments/academic units. Cross-listed courses may be taken through either department/academic unit, but credit may be earned for only one of the courses.	Prerequisite	A course for which credit must have been earned prior to registration in another course, lab, or recitation which lists it as a prerequisite. Students have the right to explore being admitted to a particular course for which they lack the stated prerequisite(s). Such permission must be sought and recorded in writing with the Registrar from the chairperson of the academic unit in which the course is housed and/or the instructor of the course.
Dean	Also called Dean of the Faculty; the chief academic administrator of a Faculty.	Probation	A conditional status assigned to a student who has shown evidence of academic weakness. See Academic Regulation 7. A student on academic probation can be required to follow regular or special terms as delineated by the Dean or Associate Dean of his/her faculty.
Elective	A course not specifically required by a student's program of studies. Various types of electives exist, such as "free"/"open" and "non-Commerce".	Program	An approved combination of courses in a subject area(s) which fulfils the requirements for a degree, diploma, or certificate.
Faculty	When spelled with a capital F, refers to an academic unit offering its own degree, diploma, and certificate program(s); when spelled with a small f, refers to instructors in a Faculty.	Qualifying Year	Students may be required to complete one or more courses to qualify for admission to a graduate program.
Full-time	See "Attendance Status" above.	Registration	The process of officially selecting courses, labs, and recitations AND making the appropriate arrangements with the Financial Services Office for payment of all required fees. See the "Registration" component of Section 2 of the <i>Academic Calendar</i> .
Grade	The letter indicating an instructor's evaluation of a student. See Academic Regulation 5 (undergraduate) and Graduate Regulation 6 (graduate).	Registration Advisory Unit	A special service available to all students requiring assistance with their registration. (See the Registration component of this Section of the <i>Calendar</i> , 1(b).
Honors	The main subject area of study in a degree program, chosen in addition to or in lieu of a major(s). A student cannot pursue an honors program and a major/concentration in the same subject area.	Satisfactory academic standing (standard)	Maintaining a quality point average of at least 1.70 academic standing if an undergraduate; at least 3.00 if in a graduate (standard) program.
Instructor	A member of faculty.	Scholarship	A monetary award based on academic achievement.
Letter of Permission	An official document issued by Saint Mary's to enable its own student to register for a course(s) at another post-secondary institution and to guarantee transfer of the credit for that course(s), if successfully completed, to the student's academic program. See Academic Regulation 21.	Semester	A term or period of instruction corresponding to one-half of the academic year; each semester lasts approximately fourteen weeks. The fall or first semester extends from September to December; the winter or second semester, from January to April.
Liberated Learning	Courses which enable students to see the spoken lecture displayed as text and receive speech recognition software generated lecture notes. Visit www.liberatedlearning.com to learn more about this technology.		First Summer Session (mid May to late June) is also a session or semester as is the Second Summer Session (July to mid-August).
Major	A formal, specific subject area of study within an academic unit as defined by its degree program.		
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. See Admission Regulation 4a.		
Part-time	See "Attendance Status" above.		
Plagiarism	Please consult Academic Regulation 19(b).		

Session	A formal, fixed period of time in a calendar year when classes are offered. There are three academic sessions each year, namely, the academic year (September to April) comprised of two semesters; the first summer session (early May to late June); and the second summer session (early July to mid August).	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 Year 5: 20.5 - 25.0 credits
Special Student	A student from another post-secondary academic institution who has a Letter of Permission to register for a course(s) at Saint Mary's University.	Explanation of Abbreviations Accounting ACC Advanced Management Accounting Program (formerly Diploma in Management Accounting) DMA Administrative Incomplete AI Advanced Placement Certificate AP Aegrotat Standing AE Anthropology ANT Applied Research Project ARP Arabic ARA Asian Studies ASN Astronomy AST Astrophysics ASP Atlantic Canada Studies ACS Academic Audit AA Audit AU Biology BIO Business Administration BUS Certificate of Chinese Studies CHS Certificate of German Language and Culture GLC Certificate of Human Resource Management:
Subject	Also called a discipline; a specific field of study, e.g., Accounting, Chemistry, History.	Management Option HRM Psychology Option HRP Certificate of Japanese Studies JPS Certificate of Proficiency in French CPF Certificate of Spanish Language and Hispanic Culture SHC Certified Management Accountant Program CMA Chemistry CHE Chinese CHI Classics CLA Commercial Law CML Communication COM Computer Information Systems CIS
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 - the First Summer Session from mid May to late June; the Second Summer Session from early July to mid August.	(formerly Data Processing Management - DPM); also the designation of specific courses in the Computing and Information Systems area, offered by the Department of Finance and Management Science. Computing Science and Business Administration (involving emphasis on technical aspects) CSC Computing Science (with emphasis on Mathematics) CPS 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 Credit CR Criminology Certificate Program (formerly CCP) CRM Data Processing Management (now Computer Information Systems - CIS) DPM Diploma in Management Accounting (now Advanced Management Accounting Program) DMA Directed Independent Study DIS Economics ECO Education EDU Egyptian EGP Engineering EGN English EGL
Term	Same as "semester".	
Transcript	An academic document issued by the Office of the Registrar which records all aspects of a student's registrations and grades obtained at the University. An "official" transcript is one which bears the official seal of the University and which is sent directly to another institution or official of an organization. "Unofficial" transcripts also may be issued to the student. See Academic Regulation 32.	
Transfer Credit	Credit granted for work completed at another post-secondary academic institution after admission and initial registration at Saint Mary's. See Academic Regulation 21.	
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. See Admission Regulation 4c.	
Withdrawal	A formal procedure set out within the regulations of the University for withdrawing from an individual course(s), or from the University entirely. See Academic Regulation 16.	
Year of Study	Attaining a degree, diploma, or certificate depends in part on earning credits for individual courses required in that academic program. However, progress may be measured in years or levels. Advancement from one year (or level) to the next signifies students having earned credit in the number of courses normally specified on an annual basis for their academic program. The following are the credit totals required for each year of study.	

English for Academic Purposes	EAP
English as a Foreign Language	EFL
English for Personal and Professional Communication	EPPC
English as a Second Language	ESL
English for Specific Purposes	ESP
Environmental Planning	ENP
Environmental Studies	ENV
Executive Master of Business Administration	EMB
Finance	FIN
Forensic Sciences	FOR
French	FRE
General Business Studies	GBS
Geography	GPY
Geology	GEO
German	GER
Global Business Management	GBM
Global Sustainable Development	GSD
Graduate Diploma in Criminology	G.Dip.(CRM)
Graduate Diploma in International Development Studies	G.Dip.(IDS)
Greek	GRE
Hebrew	HEB
Hispanic Studies	SPS
History	HIS
Human Resource Management - Management Option of HR Certificate Program	HRM
Human Resource Management - Psychology/Management Option of HR Certificate Program	HRP
Human Resource Management (formerly Personnel and Industrial Relations)	PIR
Image Studies	IST
Incomplete	IC
Independent Study Program	ISP
Information Systems	ISS
Information Technology	IT
In Progress	IP
The Institute for Computational Astrophysics	ICA
International Baccalaureate Certificate	IB
International Business	IBS
International Development Management	IDM
International Development Studies	IDS
Irish Studies	IRS
Italian	ITA
Japanese	JPN
Latin	LAT
Linguistics	LIN
Management	MGT
Management Consulting Project	MCP
Management Science	MSC
Master of Science (Applied Sciences)	MSc (APS)
Management Studies	MST
Marketing	MKT
Master of Business Administration	MBA
MBA Consulting Project	MCP
Master of Finance	MFN
Master of Management - Co-operatives & Credit Unions	MMC
Mathematics	MAT
Philosophy	PHI
Physics	PHY
Political Science	POL
Prior Learning Assessment and Recognition	PLAR
Psychology	PSY
Registration Advisory Unit	RAU
Research Ethics Board (Saint Mary's)	REB

Religious Studies	REL
Secure Access to University Restricted Network	S.A.T.U.R.N.
Co-operative Education Program in Small Business/Entrepreneurship	SBE
Sociology	SOC
Spanish	SPA
Theatre Auditorium, McNally Building	THE
Thesis Continuation	THE
Test of Written English	TWE
Withdrawal (without academic penalty)	W
Women's Studies (undergraduate)	WMS
Women's Studies (graduate)	GWS

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Students, members of faculty, and administrative officers concerned with academic matters are all expected to be familiar with the rules, regulations, and procedures of the University as published in this *Academic Calendar*. The University reserves the right to approve academic programs and timetables, and to control access to courses and individual classes. It is the particular responsibility of students to ensure that the courses which they take are appropriate for their academic program, involve no timetable conflicts, and collectively satisfy all the requirements of that program.

Note: Academic administrators may appoint designates to carry out functions and responsibilities delineated in these academic regulations.

1. Number of Courses in an Academic Session

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 courses per semester; while in the Division of Engineering, six courses per semester constitute a normal full-time load. Undergraduate students registered for at least three courses in a semester are considered to be full-time, while students registered for fewer than three courses 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. In the case of graduate students, the normal academic and fiscal definitions of full-time and part-time apply as delineated above in this regulation and in Section 6 of this *Calendar*, 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 for which the student has officially registered. The verification is valid only for a single academic term but can be extended on the authorization of the Department Chairperson/Director.

b. Students who have earned at least five (5.0) credits at Saint Mary's may elect to take up to an additional (1.0) course in the regular academic year. Permission is not required for such an overload.

c. Students may take up to three (3.0) credits during any one summer, i.e., May to August at Saint Mary's, on Letter(s) of Permission, or a combination of these.

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 13b), 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. Students who have already declared their major, area of concentration, honors, or minor 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 (Associate Dean in Arts) who will, if necessary, assign special academic advisors. Students are strongly urged to familiarize themselves with Degree Navigator, the academic audit program. Excellent tracking of student's individual progress and "what if" scenarios can be readily obtained in visual or hard-copy format from this web-based program.

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

(i) all students who are on academic probation as defined in Regulation 7d;

- (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 1.70;
- (iii) all students who do not attain a quality point average of at least 1.70 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 7i(iii)].

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 each of their courses. 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. The statement must also show how these evaluations will be used to determine the final letter grades. This detailed grading system for the course must be given to the students **ON THE FIRST DAY OF CLASS IN THAT COURSE**. Subsequent changes to 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 at the time when they are distributed to the students.

c. Instructors must also inform students in writing on the first day of class of any "in-class" test which will be scheduled outside of the regular instructional hours of the course.

5. Undergraduate Rating, Grades and Quality Points

The undergraduate grading system was revised prior to 1 September 1997 and these revisions were made applicable to all students registered for undergraduate credit courses from 1 September 1997 onward. A number of the University's academic regulations had to be revised in conjunction with these revisions to this grading system.

a. The rating of undergraduate students' performance is given as shown below in equivalent grades, quality points, and percentages.

Grades	Quality Points (Full Course)	Quality Points (Half Course)	Percentage	Rating
A+	4.300*	2.150*	80-100	Excellent
A	4.000	2.000		
A-	3.700	1.850		
B+	3.300	1.650	70-79	Good
B	3.000	1.500		
B-	2.700	1.350		
C+	2.300	1.150	60-69	Satisfactory
C	2.000	1.000		
C-	1.700	0.850		
D	1.000	0.500	50-59	Marginal Pass

F	.000	.000	0-49	Failure or withdrawal after deadline (see 16 below)
IP				In Progress (Applicable ONLY for undergraduate honors courses.)

*In November 1997, the Senate of Saint Mary's University voted to have the A+ grade carry 4.30 quality points, retroactive to I Summer Session, 1988. All past decisions on academic matters, such as academic probation/requirement to withdraw, placement on the Dean's List, qualifications for graduation, academic distinctions, and scholarships, shall not be affected.

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 16a below)	W

c. The minimum passing grade is D (or its equivalent). Students should be aware, however, that a grade of D (or the equivalent) is regarded as a marginal pass and therefore carries negative connotations. For example, many programs require a grade higher than "D" in an introductory course in order to declare a major.

d. To receive a passing grade in a course, students normally must complete all course requirements, including all tests and examinations. Students' attention is directed to the fact that those courses carrying double numbers, i.e., HIS 517.0 (617.0) will require additional work and a higher level of academic performance from students registering for the higher number. If students are unsure about the requirements, they should check with the faculty member offering the course.

e. Students who have not completed the work of the course may, in special circumstances and with the prior written authorization of the Dean of the Faculty, be given the grade IC (incomplete) by the instructor. The IC (incomplete) grade will be considered permanent in those instances where students do not complete the work of the course and do not take any steps to have themselves deregistered from the course. The IC grade will be regarded as a failing grade and so calculated into any quality point averages. The Registrar cannot accept IC grades which have not been authorized by the appropriate Dean.

f. A temporary grade of IP (in progress) may be assigned by the instructor with the Dean's official concurrence in those instances where students do not complete on time the work in honors courses and theses. The IP grade will not attract any quality points and therefore will not be calculated into any quality point averages. If an IP grade has not been changed into a real grade six months from the last day of classes in the semester in which the course was taught it will automatically be converted to a failing grade of "F". The change from IP being a permanent grade with no impact on calculations of quality point averages to a temporary grade became effective on 1 September 2001 and is not retroactive.

g. 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 already approved "incomplete" to a real grade, a grade change must be approved by the Dean of the Faculty in which the course is offered.

h. In cases where through no fault of the student, grades have not been received and processed by the deadline stipulated by Senate, a temporary grade of AI ("administrative incomplete") will be assigned but will not be included in the calculations of quality point and cumulative quality point averages. This temporary grade of AI is assigned by the Registrar.

i. Once a final grade has been submitted to the Registrar, 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 5a 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 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 ensure 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; also a Diploma in Engineering, and a Certificate (unless a higher cumulative quality point average has already been formally stipulated); a student must achieve a minimum cumulative quality point average of 1.70.

(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. Academic Probationary Status

Academic Probationary status is incurred:

- (i) if, at the end of any academic year (i.e., on or about 1 May), full-time students have attained a quality point average between 1.00 and 1.69 for that year;
- (ii) if, at the end of any academic year (i.e., on or about 1 May), part-time students have attempted at least 5.0 credits and attained a quality point average between 1.00 and 1.69 (all credits attempted between 1 May of a preceding year and the current year will be included such that at least 5.0 credits have been attempted).
- (iii) on readmission after being required to withdraw because of academic weakness [see (i) 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.

e. Removal of Academic Probationary Status

Academic probationary status is removed:

- (i) if, at the end of any academic year (i.e., on or about 1 May) full-time students on academic probation have attained a minimum quality point average of 1.70 on all courses attempted since being placed on academic probation.
- (ii) if, at the end of any academic year (i.e., on or about 1 May) part-time students on academic probation have earned at least five (5.0) credits since being placed on probation and attained a minimum quality point average of at least 1.70.

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. This is normally not granted.

(c) All academic probationary notations are retained permanently on students' academic records.

f. Required Academic Counselling

Students whose academic performance at the University is unsatisfactory may be required by the Dean of his/her Faculty to confer with their academic advisor.

g. Required Withdrawal

At the end of each academic year (i.e., on or about 1 May) withdrawal from the University for a minimum of one calendar year is required:

- (i) for all students (both full-time and part-time) on academic probation who have attempted and earned real grades (i.e., all grades but W's) in at least five (5.0) courses since being placed on academic probation and fail to attain a minimum quality point average of 1.70 on all courses attempted since being placed on academic probation;
- (ii) if students on academic probation fail to comply with any specific formal conditions governing their probation;
- (iii) if, at the end of any academic year (i.e., on or about 1 May) full-time students have attained a quality point average less than 1.00 for that year; or

(iv) if, at the end of any academic year (i.e., on or about 1 May) part-time students have attempted at least five (5.0) courses and attained a quality point average less than 1.00. [All courses attempted between 1 May of a preceding year and the current year will be included such that at least five (5.0) courses have been attempted.]

Students who are required to withdraw from the University for both academic and non-academic reasons 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 period of required withdrawal.

h. Ad Hoc Tribunal

To ensure as smooth and as equitable a transition to academic regulations concerning the quality points affixed to individual grades as revised in 1996-97 and which became operative for all students on 1 September 1997, Senate established an Ad Hoc Tribunal to resolve any student appeals arising out of the changes in grade weightings, and the new QPA requirements of 1.70 for probation, removal of probation, and graduation. The composition of the Tribunal shall be (i) three faculty members, appointed by the Deans of the Faculties; (ii) a student who has completed at least 50% of his/her undergraduate program and is not on academic probation, appointed by SMUSA and chosen from among the SMUSA student representatives in Arts, Commerce and Science; (iii) the Registrar (or designate); and (iv) a non-voting Chairperson appointed by Senate. The decisions of this Academic Tribunal are final. A \$25.00 prepaid processing fee, refundable in the case of a successful appeal to the Tribunal, is required with any application. Students are to file their appeal letters and the requisite appeal fee with the Registrar.

i. 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 1a.
- (iii) If readmitted, students will be placed on academic probation and must fulfil the terms delineated by the Dean of the Faculty in which the student is enrolled and outlined in their letter of readmission. In agreeing to readmit a student, the Dean has the discretionary authority to set specific terms of special probation unique to each student. Students failing to satisfy all the terms of readmission may be denied the right to further registration. [See also Regulation 7b.]

Note: Students are advised that all communications concerning academic probationary status and dismissal are sent to the permanent address on file in the Registrar's Office, unless an alternate summer address has been received by the promulgated deadline. 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 scheduled by the Registrar. The maximum time allowed for each examination is three hours.
- c.** (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) or laboratory/recitation session (up to 3 hours) shall contribute more than 35% of the overall evaluation for that course.

d. 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.

e. Students are responsible for knowing the date, time and location for writing each of their formal examinations. To facilitate this, students can access and print off S.A.T.U.R.N. a copy of their own personal formal examination schedule. While this is accurate when viewed/printed, it is subject to revision without any prior notice; hence students are responsible for ensuring they have up-to-date schedules. Missing an examination for reasons of misreading or misunderstanding the date, time, and location does not constitute grounds for a "special examination" or for rescheduling the examination.

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.

f. The University acknowledges that due to the pluralistic nature of its community, some students may, on religious grounds, require alternative times to write tests and examinations. Accordingly, a student who requires an alternative test or examination time on these religious grounds should consult with the Dean of the Faculty in which the course is offered regarding alternative arrangements. Such a request must be made in writing within one week of the announcement of the test or examination date.

g. Supplementary examinations are not offered.

h. For those formal examinations written in The Tower, the Vice President, Academic and Research, appoints a Senior Invigilator for each time slot from among the members of faculty whose examinations are being written in that particular venue.

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 time frames for the submission of mid-year and final grades to the Registrar are:

- (i) 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;
- (ii) 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; and
- (iii) the cases of courses taught in Summer Sessions, grades are due in the Registrar's Office no later than one week from the last day of instruction in the course.

Students have the right to expect their grades to be submitted by these deadlines in conformity with the faculty members terms of appointment.

b. First semester Grade Report forms are no longer produced. Students can view their grades on S.A.T.U.R.N. approximately twenty-four hours after these have been received and processed. Students who

require a hard copy of their grades can print an unofficial copy off S.A.T.U.R.N. or order an official or unofficial copy of their transcript. See Academic Regulation 32.

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 no longer be posted outside the Registrar's Office because they are available on S.A.T.U.R.N. Grade Report forms will be processed and mailed as soon as possible after the completion of that complete 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. Under the FOI-POP legislation, it is not legal for members of faculty to post grades in any form whatsoever.

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 judgement 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 individual faculty member at a time mutually convenient to himself/herself and the student. Except in the case of a (iii) above, a pre-paid processing fee of \$50.00 for each examination will be charged. This fee is to be paid to the Student Accounts Office prior to the examination being written.

d. The Dean will notify the Registrar officially that permission has been given for a special examination. Before the examination has been written, the student will present the Registrar with evidence that the mandatory administrative fee of \$50.00 per examination has been duly paid. [See subsection (c) above.]

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. This appeal statement must contain specifics as to when the instructor, the Chairperson, and the Dean were consulted, together with any other information the student considers relevant. A form to launch an appeal is available from the Registrar and students are strongly encouraged to use this.

(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.

(iii) On 5 May 1993, the Academic Senate of the University passed an Enabling Motion which reads in part "...that the Executive Committee of Senate [be] empowered to deal with all appeals concerning graduation which may be made prior to Convocation." Procedurally, these appeals are made to the Registrar.

c. Decision

If possible, within one month 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 \$30.00 fee. Further appeal under (d) above requires an additional payment of \$30.00. In the event of a decision favourable 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 each academic session, a period of time is provided for students to alter their registration without the change being noted on their permanent records. During these periods, and subject to availability, a course (or section of a course), lab, or recitation may be added, dropped or exchanged for another.

b. For all these changes the period of time required from the first official day of classes is ten working days during the academic year; five days in a summer session.

c. Changes can be effected only by filing with the Registrar a Change of Registration form indicating the desired change(s). Consult the Calendar of Events for specific dates.

d. Only in extraordinary cases will a Dean or Associate Dean authorize any course changes after the time deadlines. Special forms for this purpose are available **only** from those with this signing authority.

Warning: Students are responsible for all required work in the course regardless of the date of their entry into the course. Also, tuition fees are charged from the first day of classes, even when a student registers late.

e. Students cannot be registered in a course, lab, or recitation which has reached its maximum enrolment and hence regarded as full. In exceptional circumstances, heads of academic units (i.e., chairperson, subject area representatives, directors of divisions, or area coordinators) may authorize a student officially pursuing a Saint Mary's degree, diploma, or certificate program to register in a closed course, lab, or recitation. Special permission forms required for this authorization are distributed **only** to those with signing authority.

f. Only in extraordinary cases will a Dean or Associate Dean authorize any change(s) to registration after the stipulated deadline. Special permission forms required for this authorization are distributed **only** to those with signing authority.

g. With respect to second semester courses (i.e., those designated as .2), once the regular designated change of registration period is over, students can undertake registration at the Registrar's/Records Office until the holiday closure in December. From that date in December until the reopening of the University in January, no registrations or changes of registration can be undertaken. It is possible to submit change of registration requests via S.A.T.U.R.N. except during a formal registration/change of registration period.

14. Declaration or Change of Major, Area of Concentration, Honors, or Minor

a. In order to declare or change a major, area of concentration, honors, or minor, students must file a Declaration of Major form with the Registrar. This form must have been signed by the Chairperson of the Department in which the student has been authorized to pursue a major, area of concentration, honors, or minor. Students are strongly urged to declare their major, area of concentration, honors, or minor before registering for their final ten (10.0) credits and before 1 June. Declarations filed from 1 June to 15 September will not affect the student's category and priority for registration purposes in that particular year.

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

c. Students are advised that general regulations governing majors, areas of concentration, honors, or minors are found below in subsection (d) of this regulation, and also 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. Students should check carefully because minors are not available in all subject areas.

d. Commencing on 1 September 1997, the following regulations govern a student's minor:

- (i) Ordinarily a student can declare only one minor but that can be extended to two with the permission of the Dean (or designate) of the Faculty or if the student is enrolled in the Bachelor of Arts Program with a Double Arts Concentration.
- (ii) A minimum cumulative quality point average of 2.00 is required for courses designated for a minor program.
- (iii) Consistent with individual faculty requirements, a range of courses between four (4.0) and five (5.0) shall be instituted for each academic unit which offers a minor program.
- (iv) Within each minor program, a minimum of 50% of the courses must be earned at Saint Mary's University. Students should consult the *Academic Calendar* references for the faculties (Section 3) and the academic units (Section 5) for any additional and specific requirements for minor programs.

e. Students must file a Change of Registration form indicating the dropping of their major, area of concentration, honors, or minor if they no longer intend to pursue it. Otherwise it will be assumed to be valid and the student will be expected to complete the requirements in order to qualify for graduation.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time

exist and depend very much on the number of faculty members available in a particular academic unit.

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 chosen academic program. Students should be aware that a change of Faculty is not automatic and will **not** be processed during registration periods; therefore students are strongly encouraged to file for a change of faculty by 15 June. Changes made from 15 June to 15 September will not affect the student's category and priority for registration purposes. Students on academic probation at the time of authorized transfer of Faculty or academic program automatically remain on academic probation.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

16. Withdrawing from a Course

a. In the case of half-credit courses, after the time limits indicated in 13b 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 13b 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 automatically. Non-attendance at class or non-payment of tuition fees does not constitute an official withdrawal from a course, lab, or recitation for which the student initiated registration procedures.

c. For purposes of registration, sections of courses, labs, and recitations are considered to be the same as individual courses. Hence academic regulations, procedures, and deadlines apply to all types of changes.

d. Students are advised that if they completely withdraw from all courses prior to the end of the add/drop period, a \$50.00 processing/administrative fee will be levied.

e. Students who are granted a retroactive withdrawal will be charged a \$50.00 processing/administrative fee.

Notes: (i) All withdrawals must be made officially on Change of Registration forms available from the Registrar. Should it not be possible for students to obtain such a form they can submit a request for a course change via S.A.T.U.R.N. Alternatively, a letter of withdrawal can be forwarded to the Registrar which must include the student's name, address, Saint Mary's I.D. number, and the courses (with section numbers if applicable), labs, and recitations involved in the withdrawal. Students must initiate the withdrawal from all courses, labs, and recitations. The automatic withdrawal from courses because of the withdrawal from another course which is a stated prerequisite does not occur. This same principle applies when students fail a course which is a prerequisite for another for which

they have already registered. In these instances, students must initiate the withdrawal from the course(s) for which they lack the stated prerequisite.

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

17. Retaking a Course

a. Students may retake any course. 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-credit 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.

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). The University's sanctions on plagiarism [as delineated below in subsection (e)] are designed to address a most serious problem in post-secondary educational institutions. To that end, therefore, Saint Mary's University has assumed a pro-active stance and has a Sub Committee of the Senate's Quality of Teaching Committee to examine all aspects of plagiarism and to recommend pro-active measures to raise awareness and educate students and faculty members alike on this very serious problem area. During the 2002-2003 academic year, a *Faculty Handbook on Academic Integrity* was published by this Task Force.

Submission of the same piece of work for credit in more than one course is normally 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. Notice is hereby provided that documents in a student's official file may be examined and routinely verified. Evidence of falsified or misleading documents will result in an investigation which in turn, may lead to disciplinary action including the possibility of dismissal from the University. The University reserves the right to share this information with the members of the Association of Universities and Colleges of Canada (A.U.C.C.).

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.

Further information is found below in the *Student Discipline* sub-section of Section 8. Especially to be noted is subsection c: Authority of the President of the University.

20. Advanced Standing

a. 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 or declare an area of concentration, 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 fulfil all requirements for that degree or diploma and successfully complete a minimum of 50% of the credits required for their academic program at Saint Mary's, of which a minimum of four (4.0) credits must be in the students' major or area of

concentration. In the case of students in an honors program, the minimum number of credits required to be taken at Saint Mary's is 50% of the courses stipulated for their program, of which a minimum of ten (10.0) credits 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 student's 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. In May 1995, Saint Mary's University signed the Pan-Canadian Protocol on Transfer Credits. As a result, students are able to transfer all first and second year courses which they have passed (even with a 50 or a D grade) to their academic program at Saint Mary's. In doing so, however, the clearly delineated regulations for graduation and entry into specific courses and programs remain as stated in this *Academic Calendar* and will not be adjusted to accommodate these transfer credits from other post-secondary institutions. In short, therefore, students who have courses transferred in accordance with this Protocol may not always be able to apply them to their particular academic program(s). Effective 1 September 2001, all courses regardless of their level for which students received a passing grade [D (or equivalent) or higher] will be accepted for advanced standing credits. However, the Deans have the authority to stipulate a minimum grade which must have been attained to transfer a particular course. This regulation will not be applied on a retroactive basis. In graduate programs courses with grades of B- or lower will not be recognized for transfer purposes.

(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 academic program is final.

(d) Students receiving advanced/transfer credits are advised to consult carefully Academic Regulation 29 concerning the minimum number of credits at Saint Mary's University required to qualify for a distinction.

(e) On the formal Advanced Standing Evaluation Form and on the Letter of Permission to Transfer Course Form, the coding for courses for which there is no specific Saint Mary's University equivalent course is as follows:

1st digit	= course level
T	= transfer credit
2nd digit	= number of credit granted in this particular subject and level.

Example: 3T2 = a second transfer credit at the 300 level.

b. Prior Learning Assessment and Recognition (PLAR)

PLAR recognizes learning acquired outside post-secondary institutional settings when that learning is comparable in scope and extent to University courses. Persons applying for PLAR for advanced standing are required to document that learning to the satisfaction of the academic unit in which the credit is sought and have it approved by the Dean of the Faculty in which the unit is housed. For further information contact the Office of Continuing Education.

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 an 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) at an institution other than Saint Mary's by means of a Letter of Permission are responsible for paying all appropriate fees to the institution at which they are taking the course(s). The only exception are a few formal exchange programs, details of which are available from Financial Services. These include, but are not limited to, the New England-Nova Scotia Student Exchange Program, exchange program with the University of Glasgow (Scotland), and the Canadian Universities Student Exchange Consortium (CUSEC).

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 application and registration procedures will be followed.

d. In the case of distance education courses (including those by correspondence), 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 them for credit purposes 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. Effective 1 September 2001, all courses which a student receives a passing grade [D (or equivalent) or higher] on Letter of Permission will be accepted for transfer. However, the Deans have the authority to stipulate a minimum grade which must be attained to transfer a particular course. This regulation cannot be applied on a retroactive basis.

g. 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, area of concentration, honors, or minor program. For graduate programs, no transfer credit will be given for courses with grades below B (or the equivalent).

Note: Students should note that **at least 50%** of all courses for any academic program (degree, diploma, or certificate) must be taken at Saint Mary's.

h. 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.

i. Letters of Permission will not be authorized on a retroactive basis.

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 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/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 or area of concentration. Students in a dual degree program are advised that in order to receive the two degrees at the same Convocation, they must meet the specific requirements of each portion of their academic program(s) and also achieve a minimum cumulative quality point average of 3.00 in order to qualify for graduation. 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 may obtain a second baccalaureate degree in the same faculty, but with a different major, or in a different faculty and with a different major, by completing all requirements for that degree as specified by the Dean of that Faculty. The minimum number of credits required will be 50% of the number stipulated for a first undergraduate degree. Specifically, therefore, for a Bachelor of Arts degree with a Double Concentration and a Bachelor of Science degree with a concentration, a minimum of 7.5 credits will be required; for a Bachelor of Arts degree or a Science degree with either a major or honors, as well as a Bachelor of Commerce degree, the minimum number of credits will be 10.0. Students must also complete the regulations of the *Academic Calendar* in existence when they officially began their program. In so doing, they must complete all of their credits at Saint Mary's. Any credits that have been used to satisfy the requirements for any previous academic credentials will not be permitted to count again for this second baccalaureate degree.

b. All students who wish to register in a program leading to a second baccalaureate degree must complete the appropriate application form available from the Office of Admissions at least three months prior to the academic session in which they expect to officially register for that second

degree program. Their application must include the subject(s) of their major(s).

c. Undergraduate Certificates and Diplomas as Second Credentials

(i) Students who already hold a Saint Mary's University degree and subsequently wish to obtain a Saint Mary's University undergraduate certificate or undergraduate diploma, are required to apply officially to the Admissions Office at least three months prior to the time when they anticipate beginning this program. The academic administrator of that specific program will automatically evaluate the student's previous academic work and advise the Registrar officially of the precise courses remaining to qualify for this second credential. This evaluation is an integral part of the admission process and, hence, an acceptance cannot be confirmed nor can a student register until this process has been completed.

(ii) Students who hold a degree from a recognized post-secondary institution other than Saint Mary's University are required to follow the admission procedures delineated above in (i). If admitted, the student must complete a minimum of 50% of the courses required for that academic program at Saint Mary's University, including all additional courses specified in individual program requirements.

(iii) In addition to regular degree programs, the undergraduate certificate programs to which this regulation applies are:

- Certificate of Chinese Studies (CHS)
- Certificate of Proficiency in French (CPF)
- Certificate in German Language & Culture (GLC)
- Certificate of Human Resource Management (Management Option: HRM or Management/Psychology Option: HRP)
- Certificate of Linguistics
- Certificate of Japanese Studies (JPS)
- Certificate of Spanish Language & Hispanic Culture (SLH)

The undergraduate diploma programs to which this regulation applies are:

- Diploma in Engineering
- Diploma in Forensic Sciences

(iv) Students are advised to check carefully the cumulative quality point average requirements for the specific certificate or diploma program in which they plan to enrol.

26. Certificate of Honors Equivalency

a. The Certificate of Honors Equivalency 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 enrol as upgrading students if they wish to take additional courses to qualify for admission to a Master's degree program.

27. Convocation Dates, Degrees, Diplomas, and Certificates

a. Students **MUST** file an Application for Graduation from a specific academic program with the Registrar by the dates stipulated in the University Calendar of Events. As of 1 September 2001, there is no graduation fee. If, at the discretion of the Registrar, there are circumstances which warrant waiving the stipulated deadline for filing the graduation application, the student will be assessed a \$25.00 administrative 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 officially withdraw their original application and reapply for graduation, and the above-noted deadlines will apply as will the Registrar's discretionary authority.

b. Normally there are three Convocations annually, two in May and one in October. Once all requirements are completed, students must graduate at the next Convocation. Students are permitted to receive two parchments at one Convocation only in the following instances, namely, registered in a dual degree program (see Academic Regulation 24b above) or a degree and diploma/certificate program.

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 appropriately and in the academic regalia designed for their particular academic program at Saint Mary's University.

d. The parchment shows the academic designation (i.e., degree, diploma, or certificate) as well as any academic distinction (as defined in Academic Regulation 29) which has been conferred but not the major, area of concentration, or minor. This, however, is noted in the students' official academic record and hence appears on any transcript issued, whether official or unofficial. The subject of honors is shown on the parchment.

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 Finance	M.F.I.
Master of Management - Co-operatives & Credit Unions	M.M.C.
Master of Education	M.Ed.
Master of Science	M.Sc.
Doctor of Philosophy	Ph.D.
Doctor of Civil Law, Honoris Causa	D.C.L.
Doctor of Commerce, Honoris Causa	D.Comm.
Doctor of Education, Honoris Causa	D.Ed.
Doctor of Fine Arts, Honoris Causa	D.F.A.
Doctor of Laws, Honoris Causa	LL.D.
Doctor of Letters, Honoris Causa	D.Litt.
Doctor of Science, Honoris Causa	D.Sc.

The University grants the following diplomas and certificates:

Certificate of Chinese Studies	CHS
Certificate of Proficiency in French	CPF
Certificate of German Language and Culture	GLC
Certificate of Human Resource Management	CHR
Certificate of Honors Equivalency	-
Certificate of Linguistics	LIN
Certificate of Japanese Studies	JPS

Certificate of Spanish Language and Hispanic Culture	SHC
Co-operative Education Certificate	Coop
Diploma in Engineering	Dip.Egn.
Diploma in Forensic Sciences	Dip.For.
Graduate Diploma in Criminology	G.Dip.(CRM)
Graduate Diploma in International Development Studies	G.Dip.(IDS)

f. Details of the University's policies on the reissuing of parchments are available from the Registrar. If re-issued, the cost is \$50.00 plus applicable taxes for a total of \$57.50 (Canadian).

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

28. Degree, Diploma, or Certificate in Absentia

Provided that candidates have officially notified the Registrar in writing at least ten days in advance that they will not be present at Convocation, they may receive their parchment 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 or any other proof of graduation will be prepared and released.

29. Distinctions

a. (i) In the 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: B.A., B.Sc., & B.Comm.	Quality Average	Distinction: Diploma in Engineering
summa cum laude	4.00 - 4.30	With greatest distinction
magna cum laude	3.85 - 3.99	With great distinction
cum laude	3.70 - 3.84	With distinction

(ii) 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 all courses taken at Saint Mary's is at least 4.00. Otherwise the honors degree will be awarded without special distinction.

b. The above-noted quality point averages will be calculated on the basis of all courses taken at Saint Mary's. Students must have taken 75% (80% in Engineering) of their courses at Saint Mary's to qualify for a distinction. In the case of the honors degree, students must have taken a minimum of 75% of their courses at Saint Mary's to qualify for a distinction. This "75%" stipulation as distinct from the previous "85%" became effective 1 September 2001 and will not be applied on a retroactive basis. In terms of specific academic programs, the details are as follows:

B.A.	Concentration	11.5 courses	Major: 15.0 courses Honors: 15.0 courses
B.Comm.	Major:	15.0 courses	Honors: 15.0 courses
B.Sc.	Concentration:	11.5 courses	Major: 15.0 courses Honors: 15.0 courses
B.Sc./Dip.Egn.		11.5 courses	
Dip.Egn.		9.0 courses	

The only exception to this is when the student has earned the equivalent of five (5.0) credits at Centre international d'études françaises (C.I.D.E.F.) de l'Université catholique de l'ouest, Angers, France; and from exchange programs with which Saint Mary's University has entered into formal agreements.

c. No distinctions are awarded in graduate, education, and certificate programs.

d. In May 2002 as a Bicentennial project, the President's Hall of Academic Excellence was established. Located directly outside the Office of the President (main wing, main floor, McNally Building) the Hall displays a listing of all the distinctions earned and medals won by graduating students as well as members of faculty. This will be an annual listing for those students who have graduated with academic excellence.

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, and Commerce; 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.(IDS); M.Sc.(Applied Psychology); M.B.A., and E.M.B.A. 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 Convocations.

31. Dean's Lists for Undergraduate Programs

Saint Mary's University recognizes students of high academic standing by placing them on the Dean's List. There are two systems by which students may qualify for placement on the Dean's List:

a. At the end of each academic year (i.e., on or about 1 May), full-time students whose quality point average indicates high academic achievement will be placed on the Dean's List and have that achievement recorded on their official academic records. To qualify for this recognition, students must have taken at least five (5.0) courses during that academic year, have achieved a minimum quality point average of 3.67, and received no "F" grades. In instances where Saint Mary's has authorized a student to enrol in a course(s) on a Letter of Permission which, when counted with courses taken at Saint Mary's in one academic year, totals at least five (5.0) and which gives the required minimum quality point average, students are invited to apply officially for placement on the Dean's List. Because the Student Information System (SIS) cannot easily identify these cases, a formal application form is required. These are available from the Registrar's Office.

b. (i) For students registered in less than five (5.0) courses in an academic year to qualify for placement on the Dean's List, they must have taken and completed overall at least five (5.0) courses. They must have achieved a minimum quality point average of 3.67 and received no "F" grades on these courses. After having been placed on the Dean's List, these students must take at least five (5.0) additional courses 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 (i.e., on or about 1 May) and recorded on students' official academic records.

(ii) Because the Student Information System cannot easily identify those who qualify for placement on the Dean's List under Academic Regulation 31b(i) above, only those 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 students.

c. On 15 January 2003, the Dean's List Display for the Faculty of Commerce was unveiled on the first floor of the Sobey Building and is updated annually.

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 (Nova Scotia's Freedom of Information and Protection of Privacy Act, S.N.S. 1993, chapter 5) and the country (Personal Information Protection and Electronic Documents Act). As the University is committed to the integrity of its student records, students are required to provide, on their Application for Admission, their complete legal name. Any requests to change that name, by means of alteration, deletion, substitution or addition, must be made in writing to the Registrar and accompanied by appropriate supporting documentation. The University's official policy on this subject is contained in the pamphlet entitled, "Policy Regarding the Release of Information about Students". Copies are available from the Registrar.

In addition to the internal policies, procedures, and practices of the University and the requirements of the provincial FOI-POP legislation (as of 23 November 2000 and the national PIPEDA legislation, as a public institution the University is mandated to collect and report annually to Statistics Canada through the Maritime Provinces Higher Education Commission (MPHEC). The types of information collected in this E.S.I.S. project; the uses to which this data is put; and the opting-out mechanism for those students who do not wish this material about them to be used in any fashion are available on request from Statistics' Canada's web site: <http://www.statcan.ca> or by writing to the Postsecondary Section, Centre for Education Statistics, 17th Floor, R.H. Coats Building, Tunney's Pasture, Ottawa, ON K1A 0T6.

b. Students' transcripts of records are privileged information and to that end will not be released by the Registrar to any individual 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.

Commencing in the February 1998, a "Same Day/Next Day Transcript Service" was launched to provide students/alumni with an express service for ordering and receiving their transcripts. Details on these two services follows.

Same Day Transcript Service

Requests must be received at the Registrar's Office by 10:00 a.m. for pick-up, mailing or faxing by 4:00 p.m. the same day.

Next Day Transcript Service

This is offered within a 24 hour period during regular business hours. For example, if the request is received by 2:00 p.m. the transcript(s) will be ready for pick-up, mailing, or faxing by 2:00 p.m. the following day.

Costs

There is an additional service charge:

- * SAME DAY \$12.00
- * NEXT DAY \$10.00

This fee is **over and above** all other charges, i.e. the \$5 per transcript cost; faxing, and if applicable, courier charges. It is recommended that transcripts be picked-up when ready. Students who wish to have a transcript mailed should be aware that outgoing mail does not leave the University after 1:30 p.m. daily.

Blackout Periods

These express transcript services will not be operational for the first 10 working days of January or May. Next Day and Same Day Transcript Service is **NOT** applicable to those individuals who attended Saint Mary's University prior to the 1973-74 academic year.

Further information as to timeframes and costs is available on request. Transcripts include the following information:

- (i) Faculty, program, major, area of concentration, minor, and/or honors;
- (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.

NOTE: All transcripts carry only the student's birth month and day, not the birth year.

e. The cost is \$5.00 per copy which 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; \$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. Copies of the "Policy Regarding the Release of Information about Students", as approved by Senate in April 1994, are available from the Registrar. Effective 23 November 2000, all post-secondary institutions in Nova Scotia are also governed by the Freedom of Information and Protection of Privacy legislation (FOI POP).

33. Safety and Responsibility in Officially-Sanctioned University Activities

Saint Mary's University has policies on the safety and responsibility of students in laboratories, on field courses/trips, in exchange programs/ courses, and involved in other university-sanctioned activities. Copies of those policies are available through the Offices of the Deans of the Faculties, the Office of the Safety Coordinator, and the Office of the Director of International Activities. In courses where a safety policy is particularly relevant because of the special nature of the course, or because of the place of study, instructors will make it known to students in writing at the first class, or in the case of study programs outside Nova Scotia, before the program begins.

34. University Research Ethics Board (REB)

It is the responsibility of all members of the University community - students, faculty, administrators, and staff - carrying out research involving human subjects to seek approval from the University Research Ethics Board (REB) for their research. Student submissions to the REB should be made through the thesis supervisor. For further information, please consult the REB website: www.smu.ca/academic/reb.

Registration

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1. Procedures

(a) *The Registration Book*

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, approximately mid to late July. It is also available on the web.

(b) Registration Advisory Unit (R.A.U.)

Begun as a pilot project in July 2002, this Unit provides ALL students with the opportunity to receive assistance in a number of registration-specific areas.

For students unfamiliar with the registration process, the following will be helpful - the Saint Mary's University course numbering systems and designators; how to develop your own personal class schedule; the basic requirements for each academic program; an overview of the academic philosophy of the University; and a detailed explanation of key specific academic regulations, policies, procedures, and deadlines, both academic and financial.

The R.A.U. is open to all students to answer questions and provide assistance in solving any problem(s) which was identified as mail-in registration forms were being processed. Questions could range from "where is my registration form in the process?"; "how can I resolve the specific problem(s) which arose when my registration was being processed?" to "how can I find one more course to fit my schedule?" Students will also still have the traditional channels for handling these registration-related matters, namely, by fax, by mail, or through S.A.T.U.R.N. The R.A.U. will provide another option for students in the hopes of providing even more services to students; thereby not only improving our service but putting a real human face on the entire registration process.

The R.A.U. operates annually during the periods of formal registration, late registration, and the official change of registration periods - i.e., from mid July to mid September and again during the first two weeks of January.

2. Automated Registration in August

The procedures by which students register will be announced in the *2004-2005 Registration Book*. Basically it will consist of regular registration in person by mail, by fax, or by submission through the web

in late July to early August. This will be followed by a change of registration period conducted both in person on campus or with students submitting their requests via the web. Certain blackout periods apply so please check very carefully. Students are expected to have completed their registration prior to the beginning of classes which, for 2004, is Wednesday, 3 September.

3. Late Registration

The University strongly discourages students from registering late. In very exceptional circumstances and providing the Dean of the student's Faculty concurs, a student may register late in whatever courses, sections of courses, labs, and recitations still having seats remaining in them upon payment of a late registration fee of \$50.00. Special forms, available only from the Deans and valid only for twenty-four hours from the time of authorization, must be obtained before a student can proceed with Late Registration.

4. Change of Registration: Courses, Labs, and Recitations

The *2004-2005 Registration Book* contains detailed information on the timetable and procedures for this process.

5. Change of Registration: Biographical Information

In addition to changes of courses, labs, and recitations, change of registration also consists of maintaining the accuracy of biographical information, i.e., addresses, and telephone numbers, name. Only students can initiate these changes; only the Registrar can officially process these changes. Changes made in any other way, formally or informally, are not honored.

6. Registration in Dual Academic Programs

Students are advised that if they are registered in a dual academic program and opt to 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 at least the minimum number of credits specified for that second specific program (see Academic Regulations 24 and 25).

7. Registration in Directed Studies/Special Topics/Reading Courses

Before students can register for such a course(s), it is necessary for information to have already been received and processed in the Registrar's/Records Office with respect to the precise course number (and section number, if applicable), and also the faculty member who will be responsible for the course. If you are planning to register for such a course during the 2004-2005 academic year, please ensure that you have made the necessary arrangements with the faculty member and that the Chairperson of the Department in which the course is offered has made this information available in writing to the Associate Registrar. Until this information has been received and processed, registration in that course cannot be undertaken. Attention to this detail will facilitate registration for all concerned.

8. Alterations to Academic Timetable

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

9. Cancellation of Courses

If the number of students registered for a course (or section of a course) is insufficient to warrant it 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 and/or the Vice President, Academic and Research.

10. Addresses

During the academic year, all communications are mailed to local addresses. Therefore students are urged to keep their 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 has been filed with the Registrar prior to the advertised deadlines. 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) or from the web.

11. Identification Cards

At the time of first registration, students are required to obtain an I.D. card which will be issued upon presentation of their official Registration Receipt. These I.D. cards provide students with an official University identification which can be required for the writing of examinations and tests. [See Academic Regulation 8(e).] These cards also serve as Library cards, permit computer terminal use, allow access to The Tower (Fitness and Recreation Centre), and enable students to qualify for discounts at some local businesses. There is no charge for the initial I.D. card.

Each subsequent year I.D. cards are validated during registration at no cost. A replacement card costing \$15.00 for lost or damaged cards will be issued with proof of valid registration.

Students can obtain their I.D. card at the Library.

12. Special Hours for Registrar's/Records Office

Students are advised that during formal registrations, the Registrar's Office itself is not always open, as all key personnel will be assigned to work the registration system in other physical locations. At other times, this Office may have to close for short periods of time in order to accommodate the processing of forms and/or in compliance with the terms of employment for unionized personnel working in this administrative unit. Throughout the year when classes are on, this office is open on Monday and Tuesday nights until 6:00 p.m. The Office normally does not close at lunch hour. Special hours of operation apply on Convocation Days.

13. The World Wide Web: www.smu.ca/registrar

The Registrar's Office is continuing its World Wide Web development. You can access the *Academic Calendars* from the 1998-99 edition forward, course descriptions, program requirements, and the latest tuition information along with Orientation 2004 functions, dates, and times, once these have been determined. Students are strongly encouraged to use this to obtain up-to-date information.

In the fall of 1997, the Secure Access to University Restricted Network (S.A.T.U.R.N.) was launched. Your S.A.T.U.R.N. PIN is automatically mailed to all accepted students approximately 10 days after their official acceptance to the University. Should students lose their PIN's, a replacement can be issued at the Registrar's Office after 24 hours and at a cost of \$10.00 and photo ID. With a PIN, students can access such data items as the academic timetable, complete with open and closed course indicators; their own courses; their personal examination schedules; their own grades (for the current academic session), can submit requests to change their address(es) as well as requesting courses to be added or dropped.

Valuable information can also be obtained from the S.A.T.U.R.N. Café. Further options are being developed continuously. Watch for new projects.



His Excellency Sanjeev Chowdhury, Consul General of Canada to Vietnam and a Saint Mary's University alumnus, at the opening of the Educational Fair in Ho Chi Minh City, November 2003. On the right is the Director Recruitment at Saint Mary's University, Monica Woods.

**Faculties
and
Programs**

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3

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Faculty of Arts

Dr. Esther E. Enns, Dean

Dr. Donald J. Naulls, Associate Dean

General Information

The Faculty of Arts offers programs of study leading to the following degrees:

- Bachelor of Arts – Honors (20.0 credits)
- Bachelor of Arts – Major (20.0 credits)
- Bachelor of Arts – General (with Double Arts Concentrations) (15.0 credits)

These programs are all designed to foster knowledge and skills that can help students succeed in a wide range of professional and personal pursuits. Students can develop analytical skills, the ability to communicate thoughts effectively both orally and in writing, facility with the theories and research methods used in the Arts, a capacity to work together with those from different cultures and backgrounds, and the skills necessary for independent judgment and critical thinking.

Prospective students will normally seek admission to the *Bachelor of Arts – Major* program. This is a twenty-credit (20.0) program that combines a broad liberal arts education with indepth study in a particular field. An alternative choice for an undergraduate degree is the fifteen-credit (15.0) *Bachelor of Arts – General (with Double Arts Concentrations)*.

At a later stage, students who achieve high grades in the *Bachelor of Arts – Major* program may seek admission into the *Bachelor of Arts – Honors* program. This is an enhanced BA degree designed for students

of above-average ability, especially for those who intend to proceed to graduate work or seek a professional career related to the Honors subject(s). The Honors degree requires greater specialization and a higher level of performance than the Major degree.

In addition, undergraduate certificate programs are offered in Chinese Studies; French Language Proficiency; German Language and Culture; Japanese Studies; Linguistics; Spanish Language and Hispanic Culture. They are intended for undergraduate students, persons already holding degrees, and mature students with relevant experience.

Through the Faculty of Graduate Studies and Research, there are opportunities for students to complete a Master of Arts in the following areas: Atlantic Canada Studies, Criminology, History, International Development Studies, Philosophy, and Women's Studies. Graduate Diplomas are available in Criminology and International Development Studies as well as graduate-level courses in Geography.

Language Proficiency

For the Bachelor's degrees, 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 in assessing written work. Students who are deficient in this area are therefore strongly advised to take immediate steps to remedy that deficiency.

In Canada, a nation that is officially bilingual, there is a significant advantage in acquiring a working knowledge of the French language. Furthermore, in a world of increasing international mobility, there is particular advantage in acquiring competency in one or more international languages.

Faculty of Arts – Undergraduate Program Degree Requirements

Summary of Degree Requirements

Bachelor of Arts - Major

- Total number of credits required: 20.0 (see below - Arts regulation 1a)
- 300-level or higher Arts credits required: 11.0
- General Arts Requirements: 5.0 (see below - Arts regulation 3)
- Credits required for major: 6.0 - 8.0 (see below - Arts regulations 1b and 4a; also departmental/subject area requirements, found in Section 5)
- Cumulative quality point average for major: a minimum of 2.00 (see below - Arts regulation 1c; also departmental/subject area requirements, found in Section 5)
- Cumulative quality point average for graduation: a minimum of 1.70.

Bachelor of Arts – General (Double Arts Concentrations)

- Total number of credits required: 15.0 (see below – Arts regulation 1d)
- 300-level or higher Arts credits required: 8.0
- General Arts Requirements: 5.0 (see below – Arts regulation 3)
- Double Arts Concentration Requirement: 8.0 credits with 4.0 distinct credits in each of two Arts areas (credits are not double counted; cross-listed courses counted in only one area) (see below – Arts regulations 1e and 4b)
- Cumulative Quality Point Average for the Double Arts Concentrations requirement: a minimum of 2.00 (See below – Arts regulation 1f)
- Cumulative Quality Point Average for graduation: a minimum of 1.70.

1a. Subject to the regulations set forth in this *Calendar* for the Bachelor of Arts degree with Major, students must complete the equivalent of twenty (20.0) credits, with a minimum eleven (11.0) Arts credits at the 300 level or above. Students may also declare a Minor (see below - Arts regulation 6 a,b,c,d).

1b. In addition to satisfying the Basic Arts Requirement 3, students in the BA with Major must complete the equivalent of not fewer than six (6.0) credits in the major subject, but may count among these six any relevant course(s) taken in fulfilment of requirement 3. Not fewer than four (4.0) of the six (6.0) credits must be at the 300 level or above. No department may require more than eight (8.0) credits in the major subject.

1c. For a Major to be formally recognized and placed on the record, students must have a minimum cumulative quality point average of 2.00 (an average grade of C) in the courses specified in Requirement 1b and must have fulfilled any additional requirements specified by the department or the area. Students who fail to achieve this average may, provided they fulfil all other requirements, graduate as non-majors.

1d. Subject to the regulations set forth in this *Calendar* for the degree of Bachelor of Arts - General (Double Arts Concentrations) students must complete the equivalent of fifteen (15.0) credits; with a minimum eight (8.0) Arts credits at the 300 level or above. Students may not declare a minor in any Arts areas; students are eligible to declare a Minor in non-Arts subjects and/or a Minor in Business (see below – Arts regulation 6 b,c). Cross-listed courses are applied to one Arts area. Students must complete the equivalent of 4.0 distinct credits in each of their two designated Arts Concentrations.

1e. In addition to satisfying the Basic Arts Requirement 3, students in the B.A. General degree must complete the equivalent of not fewer than four (4.0) distinct credits in two Arts areas for a total of 8.0 credits; but may count among the four (4.0) credits any relevant course(s) taken in fulfilment of requirement 3. Not fewer than three (3.0) of the four (4.0) credits in each of the two Arts areas for the Double Arts Concentrations Requirement must be at the 300 level or above. No department or area may require more than four (4.0) credits toward the Double Arts Concentration Requirement.

1f. For the Concentrations to be formally recognized and placed on the record, students must have a minimum cumulative quality point average of 2.00 (an average grade of C) in the courses specified in requirement 1d, and must have fulfilled any additional requirements specified by the department or the areas of concentration. Students who fail to achieve this average may, provided they fulfil all other requirements, graduate without the “Double Arts Concentrations” designation.

1g. 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 frequently takes up to five (5.0) credits but may opt for an additional credit (1.0). Permission is not required for such an overload.

3. **For the Basic Arts Requirements** students must complete:

a. English 205.1(2) or at the discretion of the Chairperson of the English Department, an alternative .5 credit in English;

b. the equivalent of one (1.0 or 0.5 plus 0.5) credit from the following: Philosophy 200 (Critical Thinking) (No other Philosophy course satisfies this requirement.) or Mathematics [including MSC 205.1(.2); MSC 206.1(.2); and MSC 225.1(.2)] or a language other than English or a natural science (except Psychology);

c. the equivalent of one and one half (1.5) credits from at least TWO of the following humanities: Classics, English other than EGL 205.1(.2), History, Philosophy other than PHI 200.0, Religious Studies, and *Modern Languages courses on literature and/or culture*; and

d. the equivalent of two (2.0) credits from at least two of the following social sciences: Anthropology, Economics, Geography, Political Science, Psychology, and Sociology.

4. **Declaring the Major(s) and Arts Concentrations**

a. Bachelor of Arts with Major(s): Not later than the completion of ten (10.0) university credits, students must declare the particular subject(s) in which they wish to major. The following are recognized as Arts subjects in which it is possible to major: Anthropology, Asian Studies, Atlantic Canada Studies, Classics, Criminology, Economics, English, French, Geography, German Studies, Hispanic Studies, History, International Development Studies, Irish Studies, Linguistics, Mathematics, Philosophy, Political Science, Psychology, Religious Studies, Sociology, and Women’s Studies. Details are available from the individual program chairpersons or co-ordinators. Alternative areas, tailored to the needs and interests of particular students, may be devised and approved by the Dean of the Faculty as an Independent Studies Major. Once a student’s major (or majors) has 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 major. While a subsequent change of Major or Arts Area 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.

It is also possible to declare a double major, (i.e., two majors, one in each of two different subject areas), 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.

b. Bachelor of Arts - General (Double Arts Concentrations)

Not later than the completion of five (5.0) credits in Arts, students must declare the two (2) subject areas in the Faculty of Arts in which they wish to complete the Double Arts Concentration Requirement. The following are Arts subject areas: Anthropology, Asian Studies, Atlantic Canada Studies, Classics, Criminology, Economics, English, French, Geography, German Studies, Hispanic Studies, History, International Development Studies, Irish Studies, Linguistics, Mathematics, Philosophy, Political Science, Psychology, Religious Studies, Sociology, and Women's Studies. Details are available from the individual program Chairpersons or Co-ordinators. Alternative areas, tailored to the needs and interests of particular students, may be devised and approved by the Dean of the Faculty as an Independent area of study. Once a student's two (2) areas of study toward their Double Arts Concentrations Requirement have been declared, students' programs must be approved annually and supervised by the departments/subject areas or by the persons responsible for the area of study. While a subsequent change in the chosen areas of study for the Double Arts Concentrations Requirement is possible, students are advised that such a change may necessitate additional courses in order to meet graduation requirements. The regulations governing this program will be those in effect at the time of declaration. Students are strongly encouraged to declare the areas for the Double Arts Concentrations Requirement prior to 1 May.

5. Non-Arts Credits

Within the limits imposed by these regulations, students may count towards a Bachelor of Arts - Major or a Bachelor of Arts - General degree, the equivalent of up to three (3.0) credits from outside the range of recognized Arts subjects as specified in requirement 4. Students registered in the Faculty of Arts should note that the following courses are acceptable as Arts credits as are all courses offered by the Faculty of Education and coded EDU as well as the following specific courses offered by the Faculty of Commerce. These are MGT 383.1(.2); MGT 384.1(.2); MSC 205.1(.2); MSC 206.1(.2); MSC 207.1(.2); and MSC/CIS 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.

6. Minors

a. Minors in Arts Subjects

Students completing a Bachelor of Arts with Major have the option of declaring minor fields in addition to major ones. Minors can be declared in most of the subject areas listed previously in Arts regulation 4, except for Criminology. A minor is also available in Film Studies. In addition, the University, in cooperation with the Nova Scotia College of Art and Design, Kings College, and Mount Saint Vincent University offers a minor in Film Studies. To satisfy the requirements for a minor, students must complete at least four (4.0) credits [at least five (5.0) credits in Business or Mathematics] in that particular subject area. At least two (2.0) of these credits

must be at the 300 level or above. For more specific departmental requirements, consult the departmental statements in Section 5 of the *Calendar*.

b. Minor in Non-Arts Subjects

Since the 1997-98 academic year, students in the Faculty of Arts have been permitted to declare a minor in a subject taught in the Faculty of Commerce (except Economics) or Faculty of Science from those academic units which currently offer this program option. The specific requirements for minor programs are those set forth by the host academic unit. Students may take a minor in another faculty, however, they must fulfil the requirements of the degree in which they are registered, including officially declaring and fulfilling the requirements for a major or honors. Students are advised that majors, honors, and minors in non-Arts subjects may result in more courses being required than the normal minimum stipulated for a Bachelor of Arts degree.

c. Minor in Business

A minor in the Faculty of Commerce is available for students pursuing a Bachelor of Arts with major, honors or double Arts concentrations. This consists of the equivalent of five (5.0) credits, namely:

ACC 241.1(.2) Introductory Accounting I
 ACC 242.1(.2) Introductory Accounting II
 CML 201.1(.2) Legal Aspects of Business
 COM 293.1(.2) Communications
 MGT 281.1(.2) Introduction to Business Management
 MGT 383.1(.2) Organizational Behavior
 MKT 270.1(.2) Introduction to Marketing
 MSC 225.1(.2) Introduction to Computer Applications
 One (1.0) elective credit in Commerce subjects.

d. Inter-University Minor in Film Studies

A minor in Film Studies is available to undergraduate students in all three faculties. Details are found in Section 5 of this *Calendar*.

The regular "Declaration of Major/Minor/Concentration" form is to be used to declare a minor. Students must fulfil all requirements for any minor(s) which they officially declared in order to qualify for graduation, or officially (i.e., in writing) withdraw their declaration of a minor(s).

7. Satisfactory Standing

In conformity with Academic Regulation 7c(i) students must achieve a minimum cumulative quality point average of 1.70 in order to qualify for graduation.

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

a. The Faculty of Arts offers honors programs in Anthropology, Atlantic Canada Studies, Asian Studies, Criminology, Economics, English, Geography, History, International Development Studies, Mathematics, French, Philosophy, Political Science, Psychology, Religious Studies, Sociology, and Women's Studies. It is also possible to take double 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.

9. Admission Requirements for Honors Program

- a.** Normally, after completing three (3.0) credits in the discipline, or with the completion of ten (10.0) credits, students should make application for admission to the honors program on the special form obtainable from the Registrar.
- b.** The 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.

10. Requirements for Continuance in and for Graduation with Honors

- a.** Students must earn a minimum of twenty (20.0) credits.
- b.** To continue in the program, students must achieve a minimum cumulative quality point average of 3.00. Students are advised that some academic units have stipulated a higher minimum cumulative quality point average.
- c.** To graduate, students must achieve a minimum cumulative quality point average of 3.00. Students are advised that some academic units have stipulated a higher minimum cumulative quality point average.
- d.** Students must complete not fewer than ten (10.0) credits 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 academic unit who may permit the substitution of up to two (2.0) credits from a related subject area as part of the ten (10.0) credits required.
- e.** In the courses presented to satisfy 12(d), students must have a minimum quality point average of 3.00 with grades of B or higher in at least eight (8.0) credits and no grade lower than C (2.00).

11. Requirements for Graduation with Double Honors

- a.** For a double honors degree, students must complete not fewer than seven (7.0) credits in each of two honors subjects. At least ten (10.0) of these credits 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 (11.0) credits, and no grade lower than C (2.00).

12. Additional Requirements for Graduation with Honors and Double Honors

For honors, students must complete the requirements for the Bachelor of Arts degree as outlined in the *Academic Calendar* (see no. 3), and any additional requirements of the relevant academic unit.

- 13.** Students who fail to meet the requirements for an honors degree but who otherwise meet the requirements for a degree with a major, on formal application, may be eligible to be awarded the general degree.
- 14.** 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 (2.0) credits, and no grade lower than C, in the same subject(s). Students are advised that some academic units have stipulated a higher minimum cumulative quality point average.

15. Co-operative Education Programs

At the present time, there are no Co-operative Educations offered in the Faculty of Arts.

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. In essence, students have to fulfil the degree requirements of each faculty with respect to required courses. Courses which are common to both degree programs and electives can be counted toward both degree programs.

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 degree as stated in Academic Regulation 24.

Second Undergraduate Degrees

At least half of the credits presented in fulfilment of a second undergraduate degree must have been taken at Saint Mary's after the conferring of the first degree. Students wishing to complete a second undergraduate degree at Saint Mary's should consult Academic Regulation 25, Section 2 of this *Academic Calendar*.

Sobey School of Business

Dr. Al Miciak, Dean

Dr. Linda Van Esch, Associate Dean

General Information

Frank H. Sobey, a Canadian entrepreneur whose dedication, creativity and hard work built an extensive retail empire, including Canada's second largest food retailer, is the inspiration of the Sobey School of Business.

The leading business school in Atlantic Canada, the Sobey School offers a full range of graduate and undergraduate programs:

- Bachelor of Commerce
- Bachelor of Commerce (Honours) in Economics
- Certificate in Human Resource Management
- Master of Business Administration
- Master of Business Administration / Certified Management Accountant
- Master of Finance (restricted admission)
- Master of Management – Co-operatives and Credit Unions (restricted admission)
- Executive Master of Business Administration
- Doctor of Philosophy in Business Administration (Management)

All programs except the Executive Master of Business Administration and the Master of Finance can be completed on a part-time basis by evening and summer study.

The four-year Bachelor of Commerce program provides a strong foundation of general knowledge and skills, followed by an opportunity to specialize. After the two-year foundation program, students choose a major area of study in Accounting, Computing and Information Systems, Economics, Finance, General Business Studies, Global Business Management, Human Resource Management and Industrial Relations, Management, Marketing, or Small Business and Entrepreneurship. A co-operative education option, placements at the Sobey Business Development Centre, and study-abroad opportunities are available to qualified students.

A certificate program in Human Resource Management can be completed independently or concurrently with a Bachelor of Commerce. For information on these programs see Section 4 of the Calendar: Continuing Education.

The two-year MBA program provides a solid foundation in business and economics to prepare managers in business, government, and not-for-profit organizations. The MBA is a generalist degree, although concentrations are offered in Accounting, Finance, Human Resource Management, Information Systems, International Business, Marketing, and Small Business and Entrepreneurship. Interested students can earn a Certified Management Accountant designation and an MBA degree concurrently. An Executive Master of Business Administration program is offered to qualified middle and senior managers. A Master of Finance program prepares students for careers as financial analysts and portfolio managers in the People's Republic of China. A web-delivered Master of Management is offered to managers of co-operatives and credit unions around the globe. For detailed descriptions, see Graduate Programs: Commerce.

The doctoral program in Business Administration (Management) prepares researchers for academe, the public sector, and private industry. The program focuses on human resource management and organizational behaviour. For a detailed description, see Graduate Programs: Commerce.

Sobey School of Business – Undergraduate Programs

Associate Dean: Dr. Linda Van Esch

Program Manager: Ms. Lois Wasteneys

Bachelor of Commerce

The following requirements apply to all entering Commerce students.

1. a. The Bachelor of Commerce program consists of twenty (20.0) credits beyond Nova Scotia Grade 12 (or equivalent). 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.
- b. Nova Scotia Community College (NSCC) students who have completed the Business Information and Technology (BIT) certificate and selected diploma programs and have been granted admission to the Faculty of Commerce may be granted advanced standing credits. Contact the Office of the Dean of Commerce for details.
- c. To receive a Saint Mary's University Bachelor of Commerce, transfer students must complete all requirements for the degree as stipulated in this *Academic Calendar*.
2. In conformity with academic regulation 7c(i) students must achieve a minimum cumulative quality point average of 1.70 in order to qualify for graduation. Honors and co-operative education students must attain a minimum cumulative quality point average of 3.00.
3. During the regular academic year a full time student will normally take the equivalent of five (5.0) credits. (See academic regulation 1.)
4. For the degree of Bachelor of Commerce, each student is required to complete successfully 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 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 205.1(.2) is required of all students.
- b. Nova Scotia Grade 12 Academic Mathematics (or equivalent) is a prerequisite for MSC 205.1(.2) and 206.1(.2). In the event that students did not have Nova Scotia Grade 12 Academic 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 complete successfully at least three (3.0) elective credits offered outside of the Faculty of Commerce. Non-Commerce courses taken in lieu of Commerce courses cannot be counted as non-Commerce electives.

6. Requirements for Year 1 and Year 2

Students required to complete additional courses due to background deficiencies should consult the Undergraduate Program Manager.

Year 1

CIS 225.1(.2) Introduction to Computer Applications
 MSC 205.1(.2) Quantitative Methods I
 MSC 206.1(.2) Quantitative Methods II
 MGT 281.1(.2) Introduction to Business Management
 ECO 201.1(.2) Principles of Economics: Micro
 ECO 202.1(.2) Principles of Economics: Macro
 EGL 205.1(.2) An Introduction to Literature
 One and one half (1.5) non-Commerce elective credits

Year 2

MSC 207.1(.2) Introductory Statistics
 ACC 241.1(.2) Introductory Financial Accounting
 ACC 242.1(.2) Introductory Managerial Accounting
 MKT 270.1(.2) Introduction to Marketing
 MGT 383.1(.2) Organizational Behavior Micro
 MGT 384.1(.2) Organizational Behavior Macro
 CML 201.1(.2) Legal Aspects of Business - Part I
 COM 293.1(.2) Communications
 One half (0.5) Economics elective - see note below
 One half (0.5) non-Commerce elective

Notes: (i) It is recommended that students wishing to major in Economics take ECO 300.1(.2) or ECO 301.1(.2).

(ii) Students who are interested in a Human Resource Management major are advised to take ECO 340.1(.2).

(iii) Other Commerce students may take one of these courses or another half (0.5) credit in Economics 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, Computing and Information Systems, Economics, Finance, Global Business Management, Management, Marketing, Human Resource Management and Industrial Relations, General Business Studies, or Small Business and Entrepreneurship. Students are expected to choose a major by the end of Year 2. Further details on the required courses for these majors 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 333.1(.2) Cost Management: Measurement Systems
 ACC 334.1(.2) Cost Management: Systems Evaluation
 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) credit free elective

Year 4

ACC 455.1(.2) Financial Accounting Seminar
 or
 ACC 470.1(.2) Management Accounting Seminar
 One (1.0) Accounting elective - see note (i) below
 MGT 489.1(.2) Strategic Management
 Two (2.0) credits non-Commerce elective
 One (1.0) credit free elective - see note (ii) below

(ii) CML 202.1(.2) is normally required by professional accounting associations.

b. Economics Major**Year 3**

One half (0.5) credit ECO elective at the 300 level or above
 ECO 300.1(.2) Intermediate Microeconomic Theory - see note below
 ECO 301.1(.2) Intermediate Macroeconomic Theory - see note below
 ECO 400.1(.2) Advanced Microeconomic Theory
 or
 ECO 401.1(.2) Advanced Macroeconomic Theory
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 One (1.0) credit humanities or language elective [Classics, History, Philosophy (except PHI 200.0), Religious Studies, English, or Modern Languages]
 One (1.0) credit free elective

Year 4

One-half (0.5) credit Economics elective at 400 level
 One (1.0) credit Economics elective at 300 level or above
 MGT 489.1(.2) Strategic Management
 One (1.0) credit social science (excluding Economics) elective [Anthropology, Geography, Political Science, Sociology, or Psychology]
 Two (2.0) credits free elective

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 (1.0) credit of Economics electives to Year 3.

c. Computing and Information Systems Major**Year 3**

ACC 332.1(.2) Planning and Control
 CIS 320.1(.2) Business Applications Programming
 CIS 326.1(.2) Database Programming
 CIS 327.1(.2) Web Information Systems
 CIS 328.1(.2) Computer Configurations
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 One (1.0) credit non-commerce elective
 One-half (0.5) credit from among ACC 323.1(.2), CIS 324.1(.2), CIS 490.1(.2) and CSC 226.1(.2)

Year 4

CIS 425.1(.2) System Analysis and Design
 CIS 435.1(.2) Decision Support Systems
 CIS 436.1(.2) Data Communications
 MGT 489.1(.2) Strategic Management
 One (1.0) credit non-commerce elective
 Two (2.0) credits free elective

d. Finance Major**Year 3**

ACC 343.1(.2) Financial Accounting Analysis
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 One-half (0.5) credit Commerce elective at 300 level or above
 One (1.0) credit non-commerce elective
 Two (2.0) credits free elective

Year 4

FIN 463.1(.2) Financial Management
 FIN 466.1(.2) Investments
 FIN 467.1(.2) Portfolio Management
 MGT 489.1(.2) Strategic Management
 One (1.0) credit Finance elective at 400 level except FIN 491.1(.2) [ACC 445.1(.2) and ECO 403.1(.2) may be used to satisfy this requirement.]
 One (1.0) credit non-commerce elective
 One (1.0) credit free elective

e. Management Major**Year 3**

ACC 332.1(.2) Planning and Control
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 MSC 317.1(.2) Operations Management
 One-half (0.5) credit Accounting elective
 One (1.0) credit Marketing elective
 One-half (0.5) credit Commerce elective
 One (1.0) credit 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) credit Finance elective
 Two (2.0) credits non-Commerce elective
 One-half (0.5) credit free elective

f. Marketing Major**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) credit non-commerce elective
 One (1.0) credit free elective

Year 4

MGT 489.1(.2) Strategic Management
 MKT 479.1(.2) Marketing Policy
 One (1.0) credit Marketing elective
 One (1.0) credit non-commerce elective
 Two (2.0) credits free elective

g. Human Resource Management and Industrial Relations Major**Year 3**

ACC 332.1(.2) Planning and Control
 ECO 340.1(.2) Human Resource Economics
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 MGT 385.1(.2) Human Resource Management
 MGT 386.1(.2) Industrial Relations
 One (1.0) credit free elective
 One (1.0) credit free elective - see note below

Year 4

MGT 483.1(.2) Interpersonal Behavior I
 MGT 485.1(.2) Wage and Salary Administration
 MGT 486.1(.2) Personnel Staffing, Training and Development
 MGT 489.1(.2) Strategic Management
 Two (2.0) credits non-commerce elective
 One (1.0) credit free elective

Notes: (i) If ECO 340.1(.2) was used to satisfy the required Economics electives in Year 2, the number of free electives credits is increased to one and one-half (1.5).

(ii) Students who successfully complete the above requirements for the Human Resource Management major will automatically be granted the Certificate in Human Resource Management.

h. General Business Studies Major**Year 3**

ACC 332.1(.2) Planning and Control
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 One and one-half (1.5) credits Commerce elective at 300 level or above
 One (1.0) credit non-commerce elective
 One (1.0) credit free elective

Year 4

MGT 489.1(.2) Strategic Management
 One and one-half (1.5) credits Commerce electives at 300 level or above
 One (1.0) credit non-commerce elective
 Two (2.0) credits free elective

i. Small Business and Entrepreneurship Major**Year 3**

ACC 332.1(.2) Planning and Control
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 MGT 389.1(.2) Structuring the Start-Up
 MGT 494.1(.2) Entrepreneurship: Theory and Concepts
 One (1.0) credit non-Commerce elective
 One and one-half (1.5) credits free electives

Year 4

MGT 380.1(.2) Family Business
 MGT 487.1(.2) New Venture Opportunities
 MGT 489.1(.2) Strategic Management
 MGT 495.1(.2) Small Business Performance Improvement
 One (1.0) credit non-Commerce elective
 Two (2.0) credits free electives

j. Global Business Management Major

Complete details on this major are described in the "Global Business Management" entry in Section 5 of this *Calendar*. This program is administered by the Department of Management.

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) credit Geographic elective - see note (ii) below
 One-half (0.5) credit 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) credit Geographic elective - see note (iv) below
 One (1.0) credit cognate elective - see note (v) below
 One-half (0.5) credit free elective

Notes: (i) If the non-Commerce elective in Year 1 was a Modern Language, then this requirement can be replaced with one (1.0) credit free elective.

(ii) One (1.0) credit elective 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 (1.0) credit elective 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 (1.0) credit elective must be selected from the approved list of Geographic credits or cognate credits found in the "Global Business Management" entry in Section 5 of this *Calendar*. If ECO 306.1(.2), ECO 310.1(.2), ECO 312.1(.2), ECO 315.1(.2), ECO 365.1(.2), ECO 406.1(.2), ECO 410.1(.2), ECO 412.1(.2), ECO 413.1(.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 (3.0) credits non-Commerce electives.

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

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

Year 1

CIS 225.1(.2) Introduction to Computer Applications
 MSC 205.1(.2) Introduction to Quantitative Methods I
 *MSC 206.1(.2) Introduction to Quantitative Methods II

MGT 281.1(.2) Introduction to Business Management
 *ECO 201.1(.2) Principles of Economics: Micro
 *ECO 202.1(.2) Principles of Economics: Macro
 EGL 205.1(.2) An Introduction to Literature
 One (1.0) credit humanities elective [Classics, History, Philosophy (except PHI 200.0), Religious Studies, English, or Modern Languages]
 One half (0.5) non-Commerce elective

Year 2

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

Year 3

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 400.1(.2) Advanced Microeconomic Theory
 *ECO 401.1(.2) Advanced Macroeconomic Theory
 *One credit Economics elective
 One (1.0) social science elective credit (Anthropology, Geography, Political Science, Sociology, or Psychology but not Economics)

Year 4

MGT 489.1(.2) Strategic Management
 *ECO 403.1(.2) Econometrics
 *ECO 404.1(.2) Special Topics in Microeconomics or
 *ECO 405.1(.2) Special Topics in Macroeconomics
 *ECO 498.1(.2) Research Seminar in Economics
 *ECO 499.1(.2) Honors Project in Economics or another one half (0.5) credit advanced economics course approved by the chairperson
 *Two and one-half (2.5) credits Economics electives

c. For courses marked with an asterisk (*), no grade below a C is acceptable and at least eight (8.0) credits 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 (2.0) credits 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 (1.5) credits from the Department of Mathematics and Computing Science for ECO 302.1(.2), 303.1(.2), and 403.1(.2).

Minors for Students in the Faculty of Commerce or offered by the Faculty for Non-Commerce Students

Students in the Faculty of Commerce are permitted to declare a minor in a subject taught in the Faculty of Arts or Faculty of Science from those academic units which currently offer this program option. The specific requirements for minor programs are those set forth by the host academic unit. While students may take a minor in another Faculty, they must fulfil the requirements of the degree in which they are registered, including officially declaring and fulfilling the requirements for a major or honors (or in the case of Science, a concentration).

A minor in Film Studies is available to undergraduate students in all three faculties. Details are found in Section 5 of the *Calendar*.

A minor in Business is available for students pursuing a Bachelor of Arts or Bachelor of Science degree. This minor consists of the equivalent of five (5.0) credits, namely:

ACC 241.1(.2) Introductory Financial Accounting
 ACC 242.1(.2) Introductory Managerial Accounting
 CIS 225.1(.2) Introduction to Computer Applications
 CML 201.1(.2) Legal Aspects of Business I
 COM 293.1(.2) Communications
 MGT 281.1(.2) Introduction to Business Management
 MGT 383.1(.2) Micro Organizational Behavior
 or
 MGT 384.1(.2) Macro Organizational Behavior
 MKT 270.1(.2) Introduction to Marketing
 One (1.0) credit elective credit in Commerce subjects

Notes: (i) This minor is not available to students pursuing a Bachelor of Commerce degree. The regular “Declaration of Major/Minor/Concentration” form is to be used to declare a minor. Students must fulfil all requirements for any minor(s) which they officially declared in order to qualify for graduation, or officially (i.e., in writing) withdraw their declaration of a minor(s).

(ii) A minimum cumulative quality point average of 2.00 is required for the minor in Business.

Bachelor of Science degree with a Double Major/Honors in Commerce and Geology

The requirements for this program are found in this section in the Faculty of Science offerings.

Co-operative Education Programs

The Faculty of Commerce offers co-operative education options to the Bachelor of Commerce program. 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 this 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. Ms. Mary Ellen MacEachern 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. Enrolment in the co-operative education option is limited and admission is on a competitive basis. The requirements listed below are the normal minimums. Satisfying these requirements does not guarantee admission.

b. Students are considered for admission to the co-operative education option in the Faculty of Commerce after the completion of seven and one half (7.5) credits. Normally, this will occur at the end of the first semester of the second year.

c. The normal prerequisite for admission to the co-operative education program in a regular Bachelor of Commerce program is a minimum cumulative quality point average of 3.00.

d. Candidates 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 program.

2. 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 Commerce (see regulations 1 through 7 in the Bachelor of Commerce section of the *Calendar*). Students are advised that for some majors, pursuing a co-operative education option may complicate course scheduling and therefore delay degree completion. It is the student’s responsibility to schedule their courses to satisfy major requirements.

b. In addition to the above requirements, students must officially register for and complete three work experiences.

c. To continue in and graduate from the co-operative education program, students must earn a minimum cumulative quality point average of 3.00.

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 Commerce Co-operative Education Program Advisor.

b. The satisfactory fulfilment of co-operative education work terms require:

- (i) the completion of three 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 within 30 days after the end of each work term detailing the student’s work experience.

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 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 the co-operative education program;
- (iv) in the judgement of the faculty, 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 Sobey School of Business, or the Co-operative Education department, which deal with employment orientation and the application of formal academic study to work experiences.

h. Academic study during work terms is discouraged. No more than one (1.0) credit may be taken during a work term. Up to one (1.0) credit within the student's major subject may be taken on a Letter of Permission at another institution. This waiver of normal University policy is permitted only for study during work terms and only if the courses cannot be taken at Saint Mary's University due to program sequencing.

4. Registration and 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, including all stipulated deadlines. 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 and work terms as they take them.

5. Timing and Sequencing of Work Terms

The basic principles behind a co-op education are that (a) work terms should build upon the studies in the preceding semester(s) and (b) work terms should enrich subsequent study terms. Ideally, work terms and study terms should alternate after the student has an academic foundation suitable for the first work term.

- 1.** Normally, the first work term will commence after the completion of the requirements for years 1 and 2 of the Bachelor of Commerce degree program.
- 2.** Normally, students must end their program with a study term.
- 3.** A "study term" is a semester of full-time study [minimum of 3 courses (1.5 credits)].

4. Students may take one (1.0) credit of part-time study during a work term.

5. Normally, at least one work term must be in the fall or winter semester. That is, students are not permitted to complete all work terms in the summer.

6. Back to Back (B2B) work terms are permissible with prior approval of the Commerce Co-op Advisor. B2B work terms must be with different employers or require significantly different job descriptions if with the same employer. Normally, students must make application to the Commerce Co-op Advisor not less than one month before the start of the second work term, providing justification for B2B work terms and a job description for the second work term.

7. Three work terms in succession, with no intervening full-time study term, are not permitted.

8. Students may "stop out" for a semester, i.e., have a semester that is neither a work term nor a study term. Students must make application to the Commerce Co-op Advisor at least one month before the start of the "stop out" semester.

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. In essence, students have to fulfil the degree requirements of each faculty with respect to required courses. Courses which are common to both degree programs and electives can be counted toward both degree programs.

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 degree as stated in academic regulation 24.

Second Undergraduate Degrees

At least half of the credits presented in fulfilment of a second undergraduate degree must have been taken at Saint Mary's after the conferring of the first degree. Students wishing to complete a second undergraduate degree at Saint Mary's should consult Academic Regulation 25, Section 2 of this *Academic Calendar*.

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

Faculty of Science

Dr. David H. S. Richardson, Dean
 Dr. William A. Bridgeo, Dean Emeritus
 Dr. Douglas H. Williamson, Dean Emeritus

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. Particular requirements for the honors in Environmental Studies are found in this *Academic Calendar*, Section 5, "Environmental Studies". These honors programs are 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 contact the Chair of the Department in which they wish to follow an honors program before the end of Year 3 for application details. Formal application for admission to an honors program must be made on a form available in the Registrar's Office.

Major

The regular major program demands a minimum grade of C in all courses in the major subject. (Particular requirements for the major in Environmental Studies are found in this *Academic Calendar*, Section 5, "Environmental Studies".) The major 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.

Faculty of Science - Undergraduate Programs

The following are considered "science subjects" at Saint Mary's University: Astronomy, Biology, Chemistry, Computing Science, Environmental Studies, Geology, Mathematics, Physics, and Psychology.

Bachelor of Science - General (i.e., With a Concentration)

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

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University.

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

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

a. one half (0.5) credit in English [EGL 205.1(.2)] and one half (0.5) credit in Humanities: Classics, English other than EGL 205.1(.2), History, Philosophy, Religious Studies and Modern Languages (courses on literature and/or culture).

b. one (1.0) credit in Mathematics: either MAT 210.1(.2) and one of 211.1(.2) or 212.1(.2) or 216.1(.2); or CSC 226.1(.2)/227.1(.2);

c. two (2.0) credits in Arts subjects and/or Economics [except ECO 205.1(.2), ECO 206.1(.2), ECO 207.1(.2)]; excluding Mathematics and Psychology. With respect to this regulation, all courses taught in Geography are considered Arts courses and all courses taught in Psychology [including PSY 348.1(.2)/WMS 348.1(.2)] and Mathematics are considered Science courses and cannot fulfil this requirement. These two (2.0) credits are in addition to requirement (a) above;

d. not less than five (5.0) or more than seven (7.0) science credits in their area of concentration (Biology, Chemistry, Computing Science, Geology, Mathematics, Physics or Psychology);

e. four (4.0) science credits not in the subject of concentration and in addition to the required Mathematics or Computing Science courses (see note below); excluding Geography, Engineering, and Environmental Studies. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfil this requirement; and

f. sufficient electives to complete the fifteen (15.0) credits required for a general Bachelor of Science.

Note: Students in the Faculty of Science are NOT permitted to use the following courses as "other sciences" in fulfilling the requirements of their academic program:

AST 217.1(.2) Life in the Universe
 BIO/ENV 203.0 Biology and the Human Environment
 CHE 220.1(.2) Chemistry and Industry
 CHE 221.1(.2) Chemistry of Life
 CHE 380.1(.2) Communications in Chemistry
 FOR 200.1(.2) Basic Sciences for Forensics I
 FOR 201.1(.2) Basic Sciences for Forensics II
 GEO 202.1(.2) Planet Earth: Atlantic Canada Perspective
 GEO 203.1(.2) Atlantic Canada: The Last Four Billion Years
 GEO 210.1(.2) Dinosaurs and Their World
 MAT 190.1(.2) Pre-Calculus Review
 MAT 202.1(.2) Concepts and Topics in Mathematics
 MAT 203.1(.2) Concepts and Topics in High School Mathematics
 MAT 207.1(.2) Survey of Statistics
 PSY 200.1(.2) Introduction to Psychology

Bachelor of Science - Major

4. Subject to the regulations set forth in this *Academic Calendar*, students must complete twenty (20.0) credits. Courses beginning with zero (0) are designed to prepare students for entry level course work and will not be credited towards any academic program.

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University.

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

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

a. one half (0.5) credit in English 205.1(.2) and one half (0.5) credit in the humanities [see 3(a) above];

b. one (1.0) credit in Mathematics or Computing Science: either MAT 210.1(.2) and one of 211.1(.2) or 212.1(.2) or 216.1(.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 (2.0) credits in Arts subjects and/or Economics [except ECO 205.1(.2), ECO 206.1(.2), ECO 207.1(.2)]; excluding Mathematics and Psychology. With respect to this regulation, all courses taught in Geography are considered Arts courses and all courses taught in Psychology [including PSY 348.1(.2)/WMS 348.1(.2)] and Mathematics are considered Science courses and cannot fulfil this requirement. These two (2.0) credits are in addition to requirement (a) above; in addition to EGL 205.1(.2);

d. not less than seven (7.0) or more than nine (9.0) credits. The Astrophysics major requires seven (7.0) credits in Physics and three (3.0) credits in Astronomy, namely, AST 202.0 plus two (2.0) credits at the 300 level or above (or equivalent). The Computing Science major requires nine (9.0) credits with a CSC or MAT course designation, in addition to the Faculty of Science requirement 6(b);

e. four (4.0) science credits — not in the subject of major and excluding the following courses: AST 217.1(.2); BIO/ENV 203.0; CHE 220.1(.2), 221.1(.2) and CHE 380.1(.2); FOR 200.1(.2)/201.1(.2); GEO 202.1(.2) and 203.1(.2); MAT 190.1(.2), 202.1(.2), 203.1(.2), and 207.1(.2); and PSY 200.1(.2) — and in addition to the required Mathematics or Computing Science credit (1.0); excluding Geography, Engineering, and Environmental Studies. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfil this requirement;

f. sufficient elective credits to complete the twenty (20.0) credits required for a Bachelor of Science with a major;

g. an additional half-credit (0.5) in Mathematics and/or Computing Science is required for the major in chemistry; and

h. students must obtain a grade of at least C in all those courses used to satisfy section 6(d) above and any other courses in the major required by the academic unit unless given a written waiver by the Dean of Science, acting in consultation with the academic unit concerned.

Double Major

7. With the approval of the chair of the academic units involved, students may pursue a double 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:

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University.

a. at least six (6.0) credits in each major subject;

b. two (2.0) science credits not in the major subjects and in addition to the required Mathematics or Computing Science credit (1.0); excluding Geography, Engineering, and Environmental Studies. With respect to this regulation, all courses taught in Psychology and Mathematics are

considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfil this requirement;

c. sufficient electives to complete the twenty (20.0) credits required for a Bachelor of Science with a double major [exclusion list under Major 6(e) applies]; and

d. students must obtain a grade of at least C in all those courses used to satisfy section 6(d) above and any other courses in the major required by the academic unit unless given a written waiver by the Dean of Science, acting in consultation with the academic unit concerned.

Note: In conformity with academic regulation 7c(i) students must achieve a minimum cumulative quality point average of 1.70 in order to qualify for graduation with a Bachelor of Science degree - with concentration, with a major, or with a double 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 cumulative quality point average of at least 2.00 in the major subject(s).

Degree of Bachelor of Science - Major and Minor

10. With the approval of the departments involved, students may pursue a major-minor program in any two science subjects (except astrophysics). Science students may also pursue a minor in another faculty (see details later in this section of the *Academic Calendar*). In addition to satisfying requirements for the Bachelor of Science major (see above), students must complete the following course requirements:

a. at least seven (7.0) credits in the major subject;

b. at least five (5.0) credits in the minor subject;

c. two (2.0) science credits not in the major or minor subjects, in addition to the required Mathematics or Computing Science credit (1.0); excluding Geography, Engineering, and Environmental Studies. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfil this requirement;

d. sufficient electives to complete the twenty (20.0) credits required for a Bachelor of Science with a major-minor;

e. in addition, students must obtain a grade of not less than C in every course in both the major and the minor subjects. A student obtaining a grade of less than C in any such course will be permitted to continue in the major-minor program only with the approval of the Dean of Science, acting in consultation with the departments concerned.

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University.

Degree of Bachelor of Science - Honors and Double Honors

11. An honors program can be taken in the following disciplines: Astrophysics, Biology, Chemistry, Computing Science, Environmental Studies, Geography, 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 honors department(s) and the Dean.

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University.

12. For the Bachelor of Science degree with honors, students must complete the requirements for a major [i.e., 6(a), 6(b), and 6(c) above] and the following:

a. ten (10.0) to twelve (12.0) credits in the honors subject, or in double honors [see Science Regulation 12(d)]. The exceptions are: Astrophysics at least nine and one half (9.5) credits in Physics and three and one half (3.5) credits in Astronomy, namely, AST 202.0 plus two and a half (2.5) credits in Astronomy at the 300 level or above (or equivalent); and Computing Science, in which a total of thirteen (13.0) CSC and MAT credits are required, in addition to the Faculty of Science requirement 6(b);

b. four (4.0) science credits not in the honors subject [one (1.0) in double honors, three (3.0) in Astrophysics and Computing Science] in addition to the required Mathematics and Computing Science credit (1.0); excluding Geography, Engineering, and Environmental Studies. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfil this requirement; [exclusion list under Major 6(e) apply];

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

d. For a double honors program, students must complete eight (8.0) credits in the subject in which they are completing their thesis. (This includes the thesis and seminar course where relevant.) Students must complete seven (7.0) credits in their second honors subject, one (1.0) credit in another science, two (2.0) credits in Arts, as well as the required credits for English [EGL 205.1(.2) and one half (0.5) credit in the humanities, Mathematics or Computing Science [MAT 210.1(.2) and one of 211.1(.2) or 212.1(.2) or 316.1(.2); or CSC 226.1(.2)/227.1(.2) as stipulated in the departmental regulations] for a minimum of twenty (20.0) credits. Entry into this double honors program requires approval by the Chairs of the two departments and the Dean of the Faculty of Science.

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

14. For a Bachelor of Science degree with honors, students must obtain a cumulative quality point average of at least 3.00.

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

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

Bachelor of Science (Major in Geography)

For details on this program please consult the "Geography" entry in Section 5 of this *Academic Calendar*.

Bachelor of Science (Geology/Commerce)

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

Combined Co-operative Education Program in Commerce/Geology

Students enrolled in the combined commerce/geology major/honors may also pursue a co-op option in this dual program. Applications to and

completion of this combined option is the same as those for other Science co-op major/honors programs.

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

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

Bachelor of Science (Major/Honors in Environmental Studies)

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

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, Commerce, or Science.

While the total time required is somewhat longer, such dual degree programs are quite feasible. In essence, students have to fulfil the degree requirements of each Faculty with respect to required courses. Courses which are common to both degree programs and electives can be counted toward both degree programs. The minimum cumulative quality point average for graduation is 3.00.

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 degree as stated in academic regulation 24.

Minor for Students in the Faculty of Science

Students in the Faculty of Science are permitted to declare a minor in a subject taught in the Faculty of Arts or Faculty of Commerce from those academic units which currently offer this program option. The specific requirements for minor programs will be those set forth by the host academic unit and that while students may take a minor in another Faculty, they must fulfil the requirements of the degree in which they are registered, including officially declaring and fulfilling the requirements for a major or honors (or in the case of Science, a concentration).

A minor in Film Studies is available to undergraduate students in all three faculties. Details are found in Section 5 of the *Calendar*.

A minor in the Faculty of Commerce is available for students pursuing a Bachelor of Arts or Bachelor of Science degree. This consists of the equivalent of five (5.0) credits, namely:

ACC 241.1(.2) Introductory Accounting I
ACC 242.1(.2) Introductory Accounting II
CML 201.1(.2) Legal Aspects of Business I
COM 293.1(.2) Communications
MGT 281.1(.2) Introduction to Business Management
MGT 383.1(.2) Organizational Behavior Micro
MKT 270.1(.2) Introduction to Marketing
MSC/CIS 225.1(.2) Introduction to Computer Applications
One (1.0) elective credit in Commerce subjects

The regular "Declaration of Major/Minor/Concentration" form is to be used to declare a minor. Students must fulfil all requirements for any minor(s) which they officially declared in order to qualify for graduation, or officially (i.e., in writing) withdraw their declaration of a minor(s).

Second Undergraduate Degrees

At least half of the credits presented in fulfilment of a second undergraduate degree must have been taken at Saint Mary's after the conferring of the first degree. Students wishing to complete a second undergraduate degree at Saint Mary's should consult Academic Regulation 25, Section 2 of this *Academic Calendar*.

Co-operative Education Programs (Major and Honors)

Mary Ellen MacEachern, Liaison Officer, Co-operative Education Programs

The Faculty of Science offers Co-operative Education programs in Biology, Chemistry, Environmental Studies, Geology, Computing Science, and Psychology. 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 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 industry and the technical problems which they face.

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.

Admission Requirements for Undergraduate Co-operative Education Programs

- a. 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.
- 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 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.
- c. 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).
- d. 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 enter.

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 registration forms available from the Registrar's Office.
- 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 fulfilment 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 terms 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 (1.0) credit 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, including all stipulated deadlines. 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 and work terms as they take them.

c. Students pay a fee equivalent to the tuition for one (1.0) credit plus differential fees, if applicable, for each work term they undertake.

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.

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

Division of Engineering

Dr. A. Seaman, External Director

General Information

Engineering studies at Saint Mary's University provides the first two years of the Bachelor of Engineering degree in association with Dalhousie University. Students follow a program for the discipline of their choice leading to a Diploma of Engineering, or a Bachelor of Science with Diploma in Engineering, upon completion of their courses at Saint Mary's.

Entrance Requirements

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

1. English 12 academic
2. Pre-calculus Mathematics 12 academic
3. Physics 12 academic
4. Chemistry 12 academic
5. One other Grade 12 academic or an approved open course. For more information, please consult "Admissions" in Section 2 of this *Calendar*.

Requirements for the Diploma in Engineering

Year One:	Credit:	Definitions:
Mathematics 210	(0.5)	Math I
Mathematics 212	(0.5)	Math II
Chemistry 210.1(.2)	(0.5)	General Chemistry I
Chemistry 213.1(.2)	(0.5)	General Chemistry II for Engineers
Physics 210	(0.5)	University Physics I
Physics 211	(0.5)	University Physics II
English 205	(0.5)	Humanities/Social Sciences I
Engineering 206	(0.5)	Graphics (Design I)
Engineering 203	(0.5)	Statics (Mechanics I)
Engineering 204	(0.5)	Computer Methods for Engineers
Engineering 209	(0.5)	Engineering Economics
Humanities or Social Science	(0.5)	Humanities/Social Sciences II

Year Two:

Students must declare their chosen discipline at the end of year one. The second year curriculum is specialized for each discipline. The seven choices are listed below, followed by a complete list of courses. Each course is followed by the numbers, one to seven, for each discipline that requires it.

1. Environmental Engineering
2. Biosystems Engineering
3. Chemical Engineering (Note that Saint Mary's does not provide all courses required)
4. Electrical Engineering
5. Civil Engineering
4. Industrial, Metallurgical & Mining Engineering
7. Mechanical Engineering

Courses:	Definitions:	Disciplines:
Mathematics 301	(0.5) (Linear Algebra)	All
Mathematics 303	(0.5) (Math III)	All
Mathematics 311	(0.5) (Math IV)	3, 4, 5, & 6
Hum./Soc.Sci. III	(0.5) Free Elective	1, 2, 3, 6, 7,
Hum./Soc.Sci. IV	(0.5) Free Elective	7 only
Biology 201/202	(1.0) Principles of Biology	1 & 2
Chemistry 344	(0.5) Intro. To Organic Chem.	1, 2, & 3
Geology 200	(1.0) Intro. To Earth Science	1 & 5
Engineering 301	(0.5) Mechanics II	2, 5, 6, & 7
Engineering 303	(0.5) Fluids	1,2,3,5,6,& 7
Engineering 304	(0.5) Mechanics of Deformable Bodies	2, 5, 6, & 7
Engineering 305	(0.5) Digital Logic	4 only
Engineering 306	(0.5) Thermodynamics	3, 4, 5, 6, & 7
Engineering 307	(0.5) Design II	4 & 7
Engineering 308	(0.5) Electric Circuits I	All
Engineering 309	(0.5) Probability and Statistics	All
Engineering 310	(0.5) Technical Communications	1, 2, 4, 5, & 6
Engineering 311	(0.5) Circuit Analysis II	4 only
CSC 301	(0.5) Data Structures and Numerical Methods	4 only

Notes: (a) Chemical Engineering requires 3 more half (0.5) courses, i.e., one and one half credits (1.5), (Chemical Process Industries, Fundamentals of Chemical Engineering, and Fundamentals of Environmental Engineering) which are offered only at DalTech but which may be taken by Saint Mary's students using a Letter of Permission procedure. See academic regulation 21 in Section 2 of this *Academic Calendar*.

(b) To qualify for the Diploma in Engineering, a student is required to achieve a minimum quality point average of 1.70.

(c) Credits for spoken language instruction do not qualify as Humanities/Social Sciences.

Three Year Bachelor of Science (General) plus Diploma of Engineering

This program entails an extra year of five (5.0) credits as listed below:

- one (1.0) Mathematics elective credit at the 400-level
- one (1.0) Chemistry elective credit at 300 level or above
- one (1.0) Physics or Biology elective credit at 300 level or above
- two (2.0) Humanities or Social Sciences elective credits at 200 level or above

Four Year Bachelor of Science with Major in Mathematics plus Diploma in Engineering

This program requires the student to complete the Engineering Diploma program for their particular discipline of choice, plus sufficient mathematics courses chosen in consultation with the Department of Mathematics to complete a major in Mathematics, plus sufficient electives to complete twenty (20.0) credits consistent with the requirements for the Bachelor of Science degree. Students who anticipate taking this option are advised to substitute CSC 226 and 227 for 204, and consult with the Department of Mathematics and Computing Science before registering for any 300 math course or EGN 309.

Note: It is also possible to arrange a four year program consisting of Diploma in Engineering and Bachelor of Science degree with other concentrations.

Entrance to Dalhousie

With a Saint Mary's University Diploma of Engineering and without additional examination students may enter Dalhousie University, and obtain the degree of Bachelor of Engineering on successful completion of the Dalhousie's portion of the Bachelor of Engineering Degree. This will normally require an additional two years of study, and students will normally be admitted to the discipline they have selected for the second year Diploma program. However, all Departments at Dalhousie are subject to a maximum number of annual admissions, and therefore available seats will be allotted on the basis of academic standing. Students with low academic standings may be offered alternative departments. Dalhousie will treat students from the Associated University programs in the same manner as students who entered the program as freshmen at Dalhousie University. Academic merit will be the only deciding factor on admission to disciplines.

Objectives

Saint Mary's University offers the first two years of an engineering degree program accredited by the Association of Professional Engineers of the Provinces through the Canadian Accreditation Board, which will assist students in developing the following qualities:

- a basic understanding of scientific principles
- a foundation in engineering mathematics
- a competence in engineering design and technical communication
- creativity
- social understanding
- an appreciation for continued learning



The McNally Building was constructed on the original Gorsebrook Golf Course property and now houses the main Administrative Offices and the Faculty of Arts.

Diploma in Forensic Sciences

Dr. Doug Strongman Program Co-ordinator

Forensic science encompasses the methodology and interpretation of data collected in the investigation of deaths, or other events, which could be criminal in nature. In Canada, police forces are regularly involved in forensic investigations but there are others, e.g., medical personnel, dentists, biologists, criminologists and anthropologists, who are interested in, or can benefit from, training in forensic sciences.

This program is designed to give the student a strong grounding in the different science disciplines (e.g., Biology, Chemistry, and Physics) that form the basis of the techniques used in forensic investigations. This science basis is provided through introductory and specialty courses offered from Departments in the Science Faculty. Students may broaden their knowledge by choosing from a list of complementary courses offered by Departments in the other Faculties (e.g., Anthropology, Sociology). Experts in forensic techniques will expose students to the application of this knowledge, primarily through the Application of Forensic Techniques course [FOR 300.1(.2)]. This diploma program is housed in the Department of Biology where a Program Co-ordinator oversees the program.

Admission

Entry to this Diploma program is by permission of the Program Co-ordinator. To be admitted, students must be enrolled in a Saint Mary's University degree program in the Faculty of Arts, Commerce, or Science; have completed five (5.0) credits with a quality point average of at least 3.00 and have declared a major. Application is made in writing, by **March 1** to the Program Co-ordinator and must include a brief statement describing reasons for choosing the program and any work-related experience or goals. Because of the significant interest in the Forensic Sciences, the number of qualified students permitted entry to this Program may have to be limited. Those admitted to this Diploma program, are regarded as being in a dual academic program and are required, therefore, to follow the rules and regulations stipulated for this status. (Reference Academic Regulation 24.)

Police officers and mature students with previous work-related experience may be admitted directly to this Diploma program without being admitted to a degree program.

Note: These are the only two categories of applicants who can pursue the Diploma program alone without being enrolled concurrently in a degree program.

Graduation

The requirement of a minimum cumulative quality point average of 3.00 applies to all students in this Diploma program.

Requirements Diploma in Forensic Sciences (10.0 credits)

1. Required courses (4.5 credits)

*FOR 200.1(.2) Basic Sciences for Forensics (0.5 credit) and
 *FOR 201.1(.2) Basic Sciences for Forensics II (0.5 credit)
 BIO 201.1(.2) Molecular and Cell Biology (0.5 credit)
 BIO 202.1(.2) Organismal and Ecological Biology (0.5 credit)
 CHE 210.1(.2) General Chemistry (0.5 credit)
 CHE 212.1(.2) Chemistry for Life Sciences (0.5 credit)
 *FOR 300.1(.2) Application of Forensic Techniques (0.5 credit)
 BIO 307.1(.2) Genetics (0.5 credit)
 and
 BIO 419.1(.2) Molecular Biology (0.5 credit)

2. Group A - Science-Intensive courses (3.5 to 4.0 credits)

ANT 373.1(.2) Fieldwork in Anthropology (0.5 credit)
 ANT 464.1(.2) Advanced Fieldwork in Anthropology (0.5 credit)
 ANT 471.1 (.2) Forensic Anthropology I (0.5 credit)
 ANT 472.1(.2) Forensic Anthropology II (0.5 credit)
 BIO 322.1(.2) General Physiology I (0.5 credit)
 BIO 323.1(.2) General Physiology II (0.5 credit)
 BIO 327.1(.2) Anatomy and Functional Morphology of Vertebrates (0.5 credit)
 BIO 398.1(.2) Introduction to Microbiology (0.5 credit)
 BIO 426.1(.2) Animal Tissues (0.5 credit)
 BIO 427.1(.2) Introductory Entomology (0.5 credit)
 CHE 332.1(.2) Introductory Analytical Chemistry: Wet Methods (0.5 credit)
 CHE 333.1(.2) Introductory Analytical Chemistry: Instrumental Methods (0.5 credit)
 CHE 344.1(.2) Organic Chemistry I (0.5 credit)
 CHE 345.1(.2) Organic Chemistry IIA (0.5 credit)
 or
 CHE 346.1(.2) Organic Chemistry IIB (0.5 credit)
 CHE 451.1(.2) Introductory Biochemistry (0.5 credit)
 PHY 235.1(.2) Physics for Life Sciences I (0.5 credit)
 PHY 236.1(.2) Physics for Life Sciences II (0.5 credit)

3. Electives (1.5 - 2.0 credits, diploma students may qualify for up to 1.0 credit based on prior training)

ANT 374.1(.2) Archeology Laboratory (0.5 credit)
 ANT 465.1(.2) Advanced Archeology Laboratory (0.5 credit)
 BIO 308.1(.2) Biostatistics (0.5 credit)
 BIO 408.1(.2) Embryology (0.5 credit)
 CRM 303.1(.2) Crime and Society (0.5 credit, entry to this course may be restricted)
 CRM 304.1(.2) Canadian Criminal Justice System (0.5 credit, entry to those course may be restricted)
 GPY 316.1(.2) Map and Photo Interpretation (0.5 credit)
 GPY 386.1(.2) Concepts in Geographical Information Systems (G.I.S.) (0.5 credit)
 PSY 210.1(.2) Mind and Brain (0.5 credit)
 PSY 230.1(.2) Memory (0.5 credit)
 PSY 320.1(.2) Psychology and Law (0.5 credit)
 *PSY 355.1(.2) Cognitive Psychology
 *PSY 260.1(.2) Personality: Normal and Abnormal (0.5 credit)
 MAT 210.1(.2) Introductory Calculus (0.5 credit) and either MAT 211.1(.2) Calculus (0.5 credit) or MAT 216.1(.2) Introduction to Statistics (0.5 credit)
 *MGT 385.1(.2) Human Resource Management (0.5 credit)
 EGN 310.1(.2) Technical Communications (0.5 credit)
 or EGL 201.1(.2) English Composition (0.5 credit)

Note: Students must satisfy all prerequisites for entry into these courses.

Courses marked * may be offered on-line. For more information, contact the Division of Continuing Education.

Faculty of Education

Acting Dean Dr. Esther E. Enns
Associate Professor Dr. Bernard Davis

The Faculty of Education offers undergraduate courses in the liberal study of education. These courses are described in section 5 of this *Academic Calendar*.

Saint Mary's University and the University of Maine at Presque Isle have established a program which allows students to qualify for Teacher Certification. This program is described in section 5 of this *Academic Calendar*.

Study Abroad Opportunities

Saint Mary's University believes that exposure to other cultures in the national and international community is an important part of a university education. Graduates with international and cross-cultural experience will be well placed to participate in the global economy. Thus, Saint Mary's students are encouraged to take advantage of on-campus opportunities to gain such experience and to undertake a part of their study in another country or another part of Canada.

International programs may take the form of a field trip, a semester-long residence at another institution, or a volunteer work opportunity. Most programs are open to students from any academic program of study. Credits earned from these programs are applicable to the extent that they fulfil the requirements of each student's own degree program.

To make the most of these opportunities students are encouraged to:

- Begin with some of the many courses available at Saint Mary's which focus on global issues or which develop foreign language skills.
- Plan well in advance, to allow time for academic, logistical, financial, and travel arrangements.
- Investigate the options available. Each program is unique, and the range of opportunities for students is different each year. As a first step, students should consult the information available on the web pages for International Learning www.smu.ca/international/international-learning. This information provides guidance in choosing an international program, details the options which are made possible through agreements with university partners in other countries, and provides information about applying for funding support.
- Consult with a faculty advisor about how an international experience can be recognized for academic credit and what works best for a specific program of study.

General inquiries and requests for assistance can be addressed to the Project Manager for International Mobility at mobility.international@smu.ca

The list of Saint Mary's partner universities and opportunities for study abroad continues to grow. Opportunities for study abroad are made possible through agreements with institutions such as:

University of Western Sydney, Australia
Xiamen University, People's Republic of China
Université Catholique de l'ouest, France
Constance University of Applied Sciences, Germany
Hokkaido University of Education, Japan
Kumamoto Guaken University, Japan
Universidad La Salle, Mexico
KwaZulu Natal, South Africa
Sun Yat-sen University, Taiwan
Nova Scotia / New England Student Exchange Program, USA

Through the AVP International Mobility Awards the Vice President, Academic and Research provides modest amounts of funding to encourage participation by students who would not otherwise have such opportunities.

In addition, in January 2004, the University received a very generous donation from Richard Homburg to fund the Homburg International Mobility Awards. These awards were established to assist full-time and part-time Saint Mary's University undergraduate and graduate students from Atlantic Canada to participate in approved international study abroad programs or other international experiences which:

- form or contribute substantially to the student's program of study, with an overseas duration of one semester or more
- entail learning or improving knowledge of a language other than the student's primary language.

Details on these and other sources of funding for study abroad are available at www.smu.ca/international/international-learning.

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, but students should also seek information from the professional schools directly as admission requirements may change.

Though not strictly required by some professional schools, it is recommended that the student complete an undergraduate degree, usually with a major or honors program, before seeking admission to a professional school. Students taking a program as preparation for entrance to professional schools are urged from the beginning to place special emphasis on a high standard of performance. Prerequisite course requirements apply and students should ensure they meet the application deadline and complete tests, such as the MCAT in time to make the application deadline.

Pre-Medical

Students intending to study medicine should have a solid academic record (i.e., at least a A- average) for admission into medical school and, in the case of Dalhousie Medical School, take five (5.0) credits per year for each of the two years prior to admission to medical school.

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

Dalhousie University requires applicants to hold a university degree. The student should write for information and consult the academic calendar of the university to which medical school admission is sought.

Pre-Dental

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

Pre-Optometry

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

Applicants must complete at least one year of university study with courses in Chemistry, Physics, Biology, Mathematics and Psychology. Information and applications are obtainable from the University of Waterloo.

Pre-Veterinary

Applicants seeking admission to the Atlantic Veterinary College, Charlottetown, P.E.I., must have at least two years of university study, including mathematics, biology, chemistry, physics, and English, with at least a B+ average and complete the necessary volunteer work with a veterinarian. Students may also apply to Ontario Veterinary College and 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/Physiotherapy

Interested students should consult the School of Occupational Therapy/Physiotherapy, Dalhousie University, to determine acceptable prerequisite courses. Since enrolment 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 at least one year of university science courses, including Biology, Chemistry or Physics, Statistics, English, and Psychology. Application packages are available through the Registrar's Office, Dalhousie University.

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/Environmental Design Studies

Saint Mary's University offers the first two years of study for students interested in pursuing a Bachelor of Environmental Design Studies. The following are the minimum academic requirements for admission to that program at Dalhousie University:

- two years (10.0 credits) of university study in any academic program with a minimum GPA of 2.5;
- one full-year class (or equivalent) in mathematics; Calculus is recommended, but a math-based class in Physics, Economics or Statistics also may be acceptable; and
- a portfolio of work (10-15 items) that demonstrates creative ability and/or artistic skill (for example, free-hand sketches, precision drawings, paintings, furniture, sculpture, craft objects, creative photography, construction projects, etc.). Photographs should be used for larger items. This may be fulfilled by taking a course in foundation drawing at the Nova Scotia College of Art and Design University.

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 a 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 as well as the details of the requirements for teacher certification from the governing body of the geographical area in which they hope/intend to teach. See the Education entry in Section 5 for details on the articulation program with the University of Maine.

Student Counselling for Pre-Professional Programs

Because of the keen competition for admission to graduate and professional schools, students who are interested in applying to graduate or professional schools are urged to contact the Office of the Dean of Science for information.

Faculty of Graduate Studies and Research

Acting Dean Dr. William Jones
 Research Grants Officer Margaret Schenk
 Graduate Studies Officer Heather Taylor

The Faculty of Graduate Studies and Research oversees the programs in graduate studies offered in Arts, Commerce, and Science.

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

Master of Arts in Atlantic Canada Studies
 Master of Arts in Criminology
 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 Women's Studies
 Master of Business Administration
 Master of Business Administration - Certified Management Accountant
 Master of Finance
 Master of Management - Co-operatives and Credit Unions
 Master of Education**
 Master of Science in Astronomy
 Master of Science in Applied Psychology
 Master of Science in Applied Science
 Doctor of Philosophy in Astronomy
 Doctor of Philosophy in Business Administration (Management)
 Graduate Diploma in International Development Studies
 Graduate Diploma in Criminology
 Graduate Courses in Geography

** available only to students currently registered in the M.A. (Education) and M.Ed. programs.

Each student's program is administered by the Faculty of Graduate Studies and Research and the academic unit concerned. Each student shall comply with the general regulations, the degree requirements, and any additional requirements of the appropriate academic unit.

Academic requirements vary depending on the student's particular academic program.

1. Qualifications for Admission

a. Admission is limited and at the discretion of the Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research. General, as well as program-specific admission requirements have been established as a guide to applicants. Possession 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. An acceptance is valid only for the two summer sessions preceding an academic year (i.e., May to August) and the academic session (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. 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. 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).

b. 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.

c. Applicants 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 as outlined in section 2(i) of the University admission requirements. In addition, the CAEL (Canadian Academic English Language Assessment) test is acceptable at a minimum score of 60. See the section of the MBA and Ph.D. Business Administration (Management) for specific language requirements for these programs.

2. Procedure for Admission

a. Application for admission shall be made to the Dean, Faculty of Graduate Studies and Research. Applicants shall arrange to have forwarded 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. Several programs require additional information. Details may be obtained by consulting the Faculty website at <http://fgsr.smu.ca> or by requesting application materials for the program of interest.

Normally application forms and all supporting documents must be on hand by February 1 of the academic year prior to the one for which admission is sought. Submission of applications by February 1 is particularly important if the applicant wishes to be considered for a Graduate Studies Award. Because some academic units have firm deadlines after which applicants will not be considered, applicants are advised to check carefully the material below pertaining to the particular program in which they are interested or the Faculty website at <http://fgsr.smu.ca>.

b. Successful applicants will be notified by the Dean of the Faculty of Graduate Studies and Research.

3. Registration

a. Registration of students in graduate programs shall take place at times indicated in this *Academic Calendar* and the *Registration Book*, published annually, approximately mid-to late July.

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

c. 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 Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research. 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 *Academic Calendar*, apply except in the instance where official verification has been received by the Registrar from a student co-signed by the Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research 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 for which the student has officially registered. The verification is valid only for a single academic term but can be extended on the authorization of the Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research.

4. Program of Study and Research

a. Students entering with an honors degree (or equivalent) must complete four (4.0) credits and submit an acceptable thesis. On the recommendation of the Department concerned, a three (3.0) credit program is permissible for a student undertaking a proportionately more demanding thesis. In Departments authorized by the Committee on Graduate Studies, a five (5.0) credit program, without thesis, is also acceptable for the degree. Courses in all programs must be at the 500 level or above, 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 are of a graduate standard.

b. On the recommendation of the appropriate Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research, a maximum of twenty percent (20%) 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 fulfilment of the requirements for another degree. In the case of the MBA program, the maximum number of such transfer credits is five (5.0); for the Master of Science in Applied Science the number is one (1.0) credit.

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 Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research 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 Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research 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

a. The maximum period of a Master's degree program in Astronomy, Education, History, and Women's Studies shall be five years, and six years in Atlantic Canada Studies, Criminology, International Development Studies, and the MBA. 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. For the Master of Science in Applied Science, the timeframe for full-time students is two years; part-time students, six years. 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 specified period of time, Program Co-ordinators must make their recommendations on either of the above matters to the Dean of the Faculty of Graduate Studies and Research who shall consult with the Faculty of Graduate Studies and Research Graduate Studies Committee and communicate the final decision to the Program Co-ordinator.

b. Students may apply to the Dean of the Faculty of Graduate Studies and Research through their Program Co-ordinator 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 Program Co-ordinator would be responsible for delineating the terms of readmission, including the outstanding academic requirements and the deadline for completion of the entire graduate program.

c. Not later than the deadline for regular registration in an academic year or summer sessions, a student in a graduate program who has completed all of the program requirements except their thesis, dissertation or major research paper/project may apply through the Program Co-ordinator to the Dean of the Faculty of Graduate Studies and Research for either Thesis Continuation or a Leave of Absence for a fixed and limited period of time. Fees for each of these options are outlined in Section 6 of this *Calendar*. Requests for a leave of absence must be supported by documentation explaining exceptional personal circumstances which would prevent research being undertaken during the period of time for which the leave applies. The decision of the Dean of the Faculty of Graduate Studies and Research is final. If a leave of absence is granted, the student is considered to be inactive in the program during the period of exemption but must pay the appropriate fees as outlined in Section 6 of this *Calendar*. All periods of exemption count towards the maximum period of study defined previously. The maximum period of exemption provided under this policy is twelve (12) months. Students returning from a leave of absence must re-activate their status by filing a Data Sheet with the Registrar and the Faculty of Graduate Studies and Research.

Note: Students who withdraw officially from a graduate program for one or more academic years instead of applying for an exemption will continue to be governed by the policies delineated in this section of the *Academic Calendar*.

6. Evaluation

In order to qualify for a Master's degree a student must obtain a quality point average of at least 3.00. Failure of any full course (or the equivalent) ordinarily will require withdrawal from the program. In exceptional circumstances, the Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research 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. These are the quality points for full (i.e. designed .0) courses. Half courses (i.e. designated 0.5) carry 50% of these quality points.

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 (Applicable for graduate

level courses, thesis, dissertation, major research paper/project, and practicum courses; also for Co-operative Education work terms; and undergraduate honors courses. For all graduate thesis, dissertation major research paper/projects and practicum courses, this grade can remain in effect until the expiration of the timeline for the completion of the individual student's entire graduate program. The IP grade is not calculated in quality point averages. Thereafter, it becomes an F ("failure") which is calculated into the calculation of a student's quality point averages. For all other graduate courses, the IP grade is valid only for a maximum of twelve months beyond the last day of classes in the semester in which the course was taught.)

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
Satisfactory	S

Note: This “S” grade is reserved exclusively for MBA 010.1(.2)/020.1(.2).

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). This is applicable also to courses earned on Letters of Permission.

7. Thesis/Major Research Project (if required)

a. To be eligible for graduation at Spring Convocation, the student’s completed thesis/major research paper/project must be submitted to the Program Co-ordinator no later than the last day of classes of the regular academic year and by 30 September for Fall Convocation. These deadlines may have to be adjusted to accommodate the actual date of a particular Convocation.

b. The thesis/major research paper/project must be ruled acceptable by the Examining Committee appointed by the Program Co-ordinator and the Dean of the Faculty of Graduate Studies and Research. 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/major research project can be accepted.

c. The Student’s Responsibilities

(i) The thesis/major research project must be submitted in the following form:

- (a) Paper: Good quality bond paper, 21.5 cm (8 1/2”) x 28 cm (11”)
 - (b) Typescript: Double spaced
 - (c) Margins:
 - Left hand margin: 4 cm (1 1/2”)
 - All other margins: 2.5 cm (1”)
 - (d) Abstract:
 - Length: approximately 150 words
 - Must be in typescript
 - Should bear the title “Abstract/Executive Summary” and

include the name of the author, the title of the thesis/major research paper/project 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 Program concerned.

(iii) The student must submit one original and two (2) copies of the accepted thesis/major research paper/project with the binding fee paid at the Financial Services Office at the current rate. The original of this receipt is to be submitted to the Registrar when the requisite number of copies of the thesis/major research paper/project are submitted. A duplicate receipt for this amount must accompany the unbound thesis/major research paper/project 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 the thesis/major research paper/project and the sale of the microfilm.

d. The Library’s Responsibilities

(i) The Library arranges for the binding of all accepted theses/major research papers/projects.

(ii) Original copies of Master’s theses/major research paper/projects are sent to the National Library in Ottawa for microfilming before they are bound and placed in the archives.

(iii) Copies of the theses/major research paper/projects 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/major research paper/project only if the student provides the extra copies and pays the additional binding fee. (Proof of payment in the form of a duplicate receipt must accompany additional copies.)

8. Academic Regulations

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

1. Number of Courses in an Academic Session
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, Diplomas, and Certificates
28. Degree, Diploma, or Certificate in Absentia
30. University Medals
32. Students’ Academic Records and Transcripts
33. Safety and Responsibility in Officially-Sanctioned University Activities
34. University Research Ethics Board (REB)

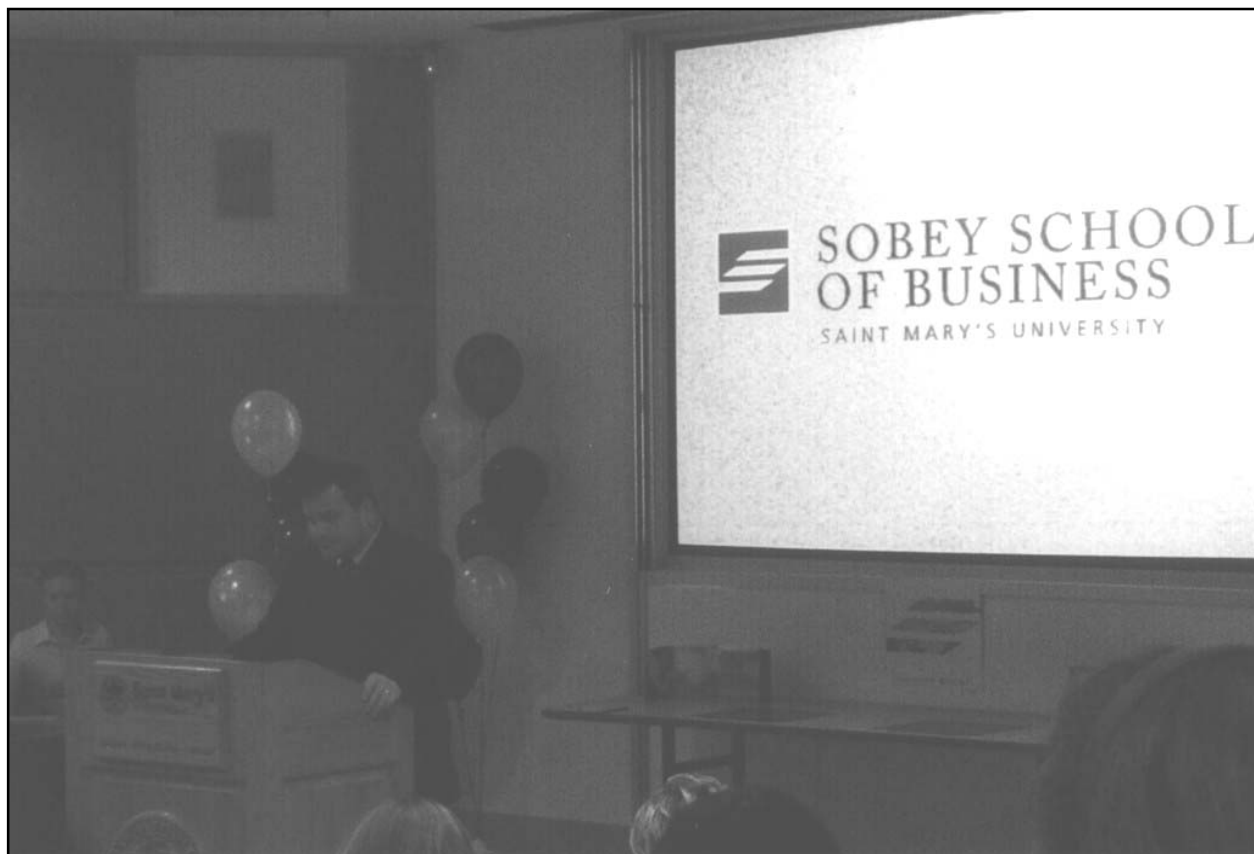
Graduate students are also advised that the information in the registration portion of Section 2 of the *Academic Calendar* applies, in most instances, to them. Academic advising for graduate students is provided in the first instance by the thesis supervisor or Program Director/Co-ordinator. If problems cannot be resolved within the program, then advice may be sought from the Dean of the Faculty of Graduate Studies and Research.

9. Specific Requirements of Academic Units

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

10. Financial Regulations

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



Dean Alan R. Miciak officiates at the launching of the new name for the Faculty of Commerce – “Sobey School of Business” – 19 September 2003.

Graduate Programs: Arts

The Faculty of Arts offers graduate programs in six areas - Atlantic Canada Studies, Criminology (both a Master's degree and a Graduate Diploma), History, International Development Studies (both a Master's degree and a Graduate Diploma), Philosophy, and Women's Studies.

Master of Arts in Atlantic Canada Studies

Committee on Atlantic Canada Studies

M. Harry, Co-ordinator	English
G. Barrett	Sociology
C. Byrne	English
J. Chamard	Management
T. Charles	Finance and Management Science
L. Christiansen-Ruffman	Sociology
D. Cone	Biology
R. Cospers	Sociology
S. Davis	Anthropology
K. Flikeid	French
J. Hill	English
C. Howell	History
R. Hulan	English
M. MacDonald	Economics
K. MacKinnon	English
R. McCalla	Geography
H. McGee	Anthropology
H. Millward	Geography
J. Morrison	History
D. Naulls	Political Science
P. Ó Siadhail	Irish Studies
V. Owen	Geology
D. Perrier	Sociology
J. Reid	History
B. Robinson	Geography
A. Seaman	English
R. Twomey	History
M. Vance	History
M. VanderPlaat	Sociology
H. Veltmeyer	Sociology
T. Whalen	English
P. Twohig	Canada Research Chair in ACS

Saint Mary's University offers an interdisciplinary program in Atlantic Canada Studies (ACS) that integrates the teaching and research expertise of 30 faculty members in thirteen 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 in their research and study.

There are particular advantages to an interdisciplinary approach to further 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 people, 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.

Canada Research Chair in Atlantic Canada Studies

Dr. Peter L. Twohig holds the Canada Research Chair in Atlantic Canada Studies. His research focuses on the history of health in Atlantic Canada and on contemporary health care issues. In addition, Dr. Twohig is interested in interdisciplinary research and research methods.

Opportunities are available for highly qualified graduate students interested in pursuing research on health (broadly defined), social policy, professional work (such as medicine, nursing, allied health workers, teaching, etc.) and/or the education of such persons, or qualitative research methods (particularly interview-based research) to work under Dr. Twohig's supervision.

The general requirements for the Master's degree apply to the graduate program in ACS.

Specifically, the Master's degree in ACS 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 ACS, or a degree which the ACS Committee deems to be equivalent (i.e., to include at minimum an average quality point average of at least B in the candidate's final ten (10.0) credits taken at university). 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.
2. The ACS Co-ordinator 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 ACS, 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 Co-ordinator (or appointee), and a third reader acceptable to the thesis supervisor and the ACS Committee.
6. Students must complete four (4.0) credits at the 600 level approved for the ACS graduate program. Two (2.0) of these credits 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 (4.0) credit 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 Criminology

Graduate Criminology Committee

Madine VanderPlaat, Co-ordinator	Sociology/Criminology
S. Bell, Graduate Co-ordinator	Sociology/Criminology
D. Crocker	Sociology/Criminology
A. Day	Psychology
P. Erickson	Anthropology
V. Johnson	Sociology/Criminology
E. Keeble	Political Science
R. Konopasky	Psychology
E. Lee	Finance & Management Science
J. McMullan	Sociology/Criminology
D. Perrier	Sociology/Criminology
S. Schneider	Sociology/Criminology
A. Schulte-Bockholt	Sociology/Criminology
S. Smith	Psychology
V. Stinson	Psychology

The purpose of the Master of Arts program in Criminology is to educate students for careers in teaching or research in criminology as well as for employment in agencies in the criminal justice system and related fields. The Department of Sociology and Criminology at Saint Mary's University has established an excellent scholarly and professional reputation in the field of criminology. The Master of Arts degree in criminology will provide graduates with analytical and research skills necessary for policy, research and administrative jobs in the field, as well as provide the scholarly basis for students to pursue doctoral studies in socio-legal studies, criminal justice, and criminology.

Students may be admitted to a qualifying year in those situations where they meet all the requirements for admission but are lacking sufficient background in criminology to study at the Master's level. In these instances, a program of study will be worked out with the Graduate Program Co-ordinator and students will be admitted to the Master's program upon successful completion at an appropriate grade level of this qualifying year program.

1. Admission Requirements

The following conditions must be satisfied to be eligible for admission to the Master of Arts degree program in criminology or a qualifying year.

- a. Students who have earned an honors baccalaureate undergraduate degree in criminology (or equivalent), or an honors baccalaureate undergraduate degree with a concentration in criminology (or equivalent) may be admitted to a four (4.0) credit Master of Arts degree program. Only in exceptional circumstances will a student with an undergraduate degree with an advanced major be admitted.
- b. All applicants must have achieved a minimum cumulative quality point average of 3.33 (B+) in their overall academic record.
- c. Applicants must submit official transcripts; a statement that specifies areas of preparation and interest for their thesis; a sample of written work and three letters of recommendation from individuals who can attest to their academic competence and/or ability to pursue graduate work.
- d. All applicants whose native language is not English and whose undergraduate education was conducted in a language other than English, must fulfil the language requirement as set out in the Academic Regulations and Information section of the *Calendar*.
- e. The Graduate Criminology Committee of the Department of Sociology and Criminology will review the files of all applicants and make final decisions about admission into the Master of Arts degree program or a qualifying year.
- f. In addition, applicants admitted to the qualifying year must have their courses approved by the Criminology Graduate Studies Co-ordinator.

g. A student in the five (5.0) credit qualifying year must make formal application to the Master of Arts degree program by February 1 of their qualifying year and must have attained a minimum cumulative quality point average of 3.33 (B+) to be considered for admission to the Master of Arts degree program.

2. Degree Requirements

Requirements for continuance in and graduation with a Master of Arts degree:

- a. Students must earn at least four (4.0) credits.
- b. Students must receive credit for the following:
 - (i) CRM 600.0 Advanced Seminar in Criminology;
 - (ii) CRM 601.1(.2) Advanced Criminological Theory;
 - (iii) CRM 602.1(.2) Advanced Research Methodology in Criminology;
 - (iv) one (1.0) credit at the 600 level, relevant to the student's area of interest from among the following courses: CRM 603.1(.2); CRM 604.1(.2); CRM 605.0, CRM 606.1(.2); CRM 607.1(.2); CRM 608.0; CRM 609.1(.2); CRM 610.1(.2); and CRM 611.0;
 - (v) CRM 615.0 Thesis Research.
- c. Students must attain a minimum grade of B+ in each course and an overall cumulative quality point average of 3.33 to graduate in this Master of Arts degree program.
- d. Each student must meet the following thesis (CRM 615.0) requirements:
 - (i) to produce a thesis which shows both originality and the analytical/critical skills of research and interpretation;

- (ii) to form a Thesis Committee which will consist of a Thesis Supervisor and one faculty member.
- (iii) to have a thesis proposal submitted to and approved by the Thesis Committee and Criminology Graduate Studies Co-ordinator prior to commencement of the research;
- (iv) to defend the thesis before an Examining Committee consisting of the Thesis Committee, the Criminology Graduate Studies Co-ordinator, and one outside reader chosen by the Thesis Committee in consultation with the Criminology Graduate Studies Co-ordinator and the student. In instances where the Criminology Graduate Studies Co-ordinator is a member of the Thesis Committee, the Criminology Graduate Studies Co-ordinator will appoint a representative on the Examining Committee; and
- (v) to defend the thesis publicly.
- e. All degree requirements must be completed within five years of entry into the Master of Arts degree program.

Graduate Courses

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

CRM 600.0 Advanced Seminar in Criminology
 CRM 601.1(.2) Advanced Criminological Theory
 CRM 602.1(.2) Advanced Research Methodology in Criminology
 CRM 603.1(.2)/604.1(.2) and 605.0 Advanced Topics in Criminology
 CRM 606.1(.2)/607.1(.2) and 608.0 Directed Readings in Criminology
 CRM 609.1(.2)/610.1(.2) and 611.0 Selected Topics in Criminology
 CRM 615.0 Thesis Research

Master of Arts in History

Chairperson, Associate Professor	M. Vance
Graduate Co-ordinator, Associate Professor	T. Stretton
Professors	E. Haigh, C. Howell, J. Morrison, J. Reid, R. Twomey
Associate Professor	W. Mills, R. Nunes
Assistant Professors	N. Neatby, B. Sewell, L. Warner
Adjunct Professor	R. Perrins
Professors Emeriti	O. Carrigan, J. MacCormack
SSHRC Post-doctoral Research Fellows	S. Butler, A. Parnaby

The Department of History has a variety of research areas with particular strengths in Atlantic Canada and Quebec, Asia, Modern Europe and the transatlantic region of the Americas, Britain and Europe from the 16th century through to the 20th century.

Thematic approaches include:

- Imperialism, nationalism and colonialism
- Sport, health, leisure and tourism
- Social, political and intellectual movements
- Youth, education, family and gender
- Law and society
- Public and oral history

The History M.A. program at Saint Mary's combines course work and thesis research and caters to both full and part time students. For full-time students, we award fellowships of up to \$15,000 funded by Saint Mary's University and the research grants of professors in the department.

Admission requirements

To be eligible for admission to the M.A. in History, applicants are normally required to possess a Bachelor of Arts degree with Honours in History, or its equivalent, from a recognized university or college. Candidates with other types of qualifications should contact the Graduate Co-ordinator of the Department of History before submitting an application.

Applicants to the M.A. in History are asked to submit a statement of research interest, a writing sample, a curriculum vitae, and a list of any scholarly awards, publications or conference papers with their application forms.

As part of the application process each student accepted into the program is assigned to a Supervisor who is the main point of contact for researching and writing the thesis. A successful application depends in part on faculty sabbatical leave and the availability of a potential supervisor in the applicant's chosen area of specialization.

Deadlines for receipt of applications:

Applicants requesting fellowships or financial assistance **15 March**.
 The final deadline for applications is **15 May**.

Requirements for the M.A. in History

The University's general requirements for the Master of Arts degree apply to the graduate students in the Department of History. Please see the Faculty of Graduate Studies and Research section of the *Academic Calendar* for these regulations.

1. Candidates must complete two (2.0) History credits at the 600 level in addition to HIS 650.0 and 690.0. The program of each student must be approved by the Department.
2. All Master of Arts candidates in History, whether studying on a full or part-time basis, must register for HIS 650.0 and 690.0 in their first semester.
3. The student will be required to demonstrate a reading knowledge of at least one language other than English. The Department will accept the equivalent of no less than a satisfactory grade in Saint Mary's 200-level undergraduate language courses, or a pass in the Department of Modern Language's French Proficiency Exam. French is normally 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. Upon completion of the thesis, the student undertakes an oral defence open to all members of the university community. Two months prior to this defence, the Department of History will select a thesis examination committee. Student requests for particular examiners will be considered, but cannot be guaranteed.

Graduate History Courses

The Graduate Co-ordinator oversees the History M.A. program and runs the core Seminar in Advanced Historiography (HIS 650.0). The class is intended to familiarize students with research and bibliographical techniques as well as a variety of theories of history, in order to provide each student with the skills necessary to begin to research and write the Masters thesis.

The Supervisor guides the student through Thesis Research (HIS.690.0) from the student's arrival at Saint Mary's until the completion of the thesis. In their first semester at Saint Mary's, History graduate students present their thesis proposals to a meeting of Department members and fellow students. The discussion is designed to offer comments and constructive criticism to each candidate and the proposals are evaluated on a pass/fail basis.

The Department offers both full year (1.0 credit) and semester (0.5 credit) courses at the 600 level. In addition to the two required credits HIS 650.0 (Seminar in Advanced Historiography) and HIS 690.0 (Thesis Research) graduate students choose two (2.0) elective credits from the available 600 level seminars.

Each year, in addition to the 600 level seminars listed below, Selected Topics seminars are offered in subject areas ranging from Public History to Early Modern England. Detailed course descriptions can be found in Section 5 of his *Calendar*.

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

- 608.0 Seminar in Intellectual and Global History
- 610.0 Global History: History and Historians
- 611.0 Modern East Asia: Selected Problems in Modernization
- 615.0 Seminar in Historiography
- 619.0 Seminar in Modern European History
- 620.0 The Two World Wars
- 622.0 Seminar in American History
- 624.0 The U.S.S.R.
- 625.0 Seminar in Irish and Scottish Immigration
- 635.0 Northeastern North America, 1480-1720
- 660.0 History and Society: The Atlantic Provinces Seminar
- 670.1(.2) - 674.1(.2); 675.0 Selected Topics Seminar

These seminars change each year. Students are encouraged to visit the Department of History website for the latest information on selected topics courses: www.smu.ca/academic/arts/history.

- 689.1(.2) Reading Course in History - Selected Topics in Irish History
- 695.1(.2)-699.1(.2) Reading Courses in History

Master of Arts in International Development Studies

Program Committee on International Development Studies

J. Chamard, Co-ordinator	Management
G. Cameron, Student Advisor	International Development Studies
A. M. Dalton	Religious Studies
S. Dansereau	International Development Studies
M. Doucet	Political Science
E. Keeble	Political Science
D. Leclair	International Activities
L. Kowalchuk	Sociology and Criminology
H. McGee	Anthropology
R. McKinnell	International Development Studies
J. Morrison	History
N. Sharif	Economics
E. Tastsoglou	Sociology and Criminology
H. Veltmeyer	Sociology and Criminology
S. Wein	Philosophy
Adjunct Professors	C. Amaratunga, D. Black, J. Kirk, R. McKinnell, J. Parpart, P. Scholey, T. Shaw

Note: In addition to the above IDS Program Committee members and Adjunct Professors, there are several other Saint Mary's faculty members teaching IDS related courses.

The graduate degree program is an interdisciplinary program comprising a core program of policy-oriented courses in the field of International Development Studies. In addition, it includes offerings by associated academic departments primarily Economics, Political Science, Sociology

and History, as well as Anthropology, Geography, and International Business (Management and Marketing).

This interdisciplinary program has as its primary focus an analysis of the problems experienced by developing countries in the Caribbean, Latin America, Asia and Africa, as well as the social, cultural, economic, historical 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 different models and strategies for national development in an increasingly global context is an important feature of the program.

The program currently has 5 areas of specialization:

1. Development Paradigms: Theory and Practice of International Development
2. Gender and Development
3. Popular Approaches to Development
4. Environment and Development
5. Enterprise and Development

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 Trade), international development agencies and immigration services, non-governmental organizations and professions such as teaching, journalism, development planning, administration and business.

Graduate courses are available to students registered in the Master's degree program; other students must have approval of the Co-ordinator of International Development Studies.

Requirements

The general requirements for the Master's degree delineated 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.

CATEGORY I (4.5 credits)

Students who have earned an honors baccalaureate undergraduate degree with a major concentration in International Development (or its equivalent) may be admitted directly into a four and one half credit (4.5) program (Category I).

(a) THESIS OPTION:

I Theory Requirement (1.5 credits)

- a. IDS 601.1(.2) Dynamics of Development: Framework of Analysis and Practice; and IDS 602.1(.2) Dynamics of Development: Critical Issues; and
- b. one half credit (0.5) theory course at the 600 level in the Department's area of specialization.

II Methodology Requirements (0.5 credit)

IDS 620.1(.2) Advanced Research Methods

III Electives (1.0 credit)

Any IDS related course at the 500 or 600 level.

IV Thesis (1.5 credits)

IDS 692.1(.2) Proposal Design; and
IDS 690.0 Thesis Research.

(b) APPLIED OPTION:

I Theory Requirement (1.5 credits)

- a. IDS 601.1(.2) Dynamics of Development: Framework of Analysis and Practice;

- b. one half credit (0.5) theory course at the 600 level in the Department's area of specialization; and
- c. one half (0.5) theory course at the 500 or 600 level.

II Applied or Methods Requirement (2.0 credits)

- a. IDS 520.1(.2) Research Methodology or Project Cycle; and
- b. one and one half (1.5) credits to be chosen from courses designated as Applied or Methods.

III Applied Research Project (1.0 credit)

- a. IDS 692.1(.2) Proposal Design; and
- b. IDS 693.1(.2) Applied Project.

CATEGORY II (7.0 credits)

Students who have earned an honors baccalaureate undergraduate degree (or its equivalent) with a minor concentration [four (4.0) relevant credits] or practical experience in the field of International Development must take an additional two and one-half credits (2.5), for a minimum total of seven (7.0) credits. (Category II).

(a) THESIS OPTION:

I Theory Requirements (2.5 credits)

- a. IDS 543.1(.2) Conceptual Foundations; and IDS 544.1(.2) Contemporary Issues;
- b. IDS 601.1(.2) Dynamics of Development: Framework of Analysis and Practice; and IDS 602.1(.2) Dynamics of Development: Critical Issues; and
- c. One half (0.5) theory credit at the 600 level in the Department's area of specialization.

II Methodology Requirements (1.0 credit)

- a. IDS Research Methodology (or equivalent); and
- b. IDS 620.1(.2) Advanced Research Methods.

III Area Studies Requirement (Asia, Africa, or Latin America) (0.5 credit)

IV Elective Course Requirements (1.5 credits)

Any IDS related course at the 500 or 600 level.

V Thesis (1.5 credits)

IDS 692.1(.2) Project Design; and
IDS 690.0 Thesis Research.

(b) APPLIED OPTION:

I Theory Requirements (2.5 credits)

- a. IDS 543.1(.2) Conceptual Foundations; and IDS 544.1(.2) Contemporary Issues. [These must be taken prior to IDS 601.1(.2)];
- b. IDS 601.1(.2) Dynamics of Development: Framework of Analysis and Practice;
- c. one half (0.5) theory credit at the 600 level in the Department's area of specialization; and
- d. one half (0.5) theory course at the 500 or 600 level.

II Applied or Methods Requirements (2.5 credits)

- a. IDS 520.1(.2) Research Methods or Project Cycle; and two (2.0) credits chosen from the Applied or Methods courses.

III Area Studies Requirement (Asia, Africa, or Latin America) (0.5 credit)

IV Elective Course Requirements (1.5 credits)

Any IDS related course at the 500 or 600 level.

* * *

1. All students must receive credit for a minimum of four and one half credits (4.5) and a maximum of eight and one-half credits (8.5). At least one-half of the students' credits must be from Saint Mary's University course offerings.
2. A minimum average of B (or equivalent) is required for graduation.
3. All degree requirements must be completed within six years of the date of first registration in the program.
4. Applicants must submit official academic transcripts; a statement that specifies areas of preparation and interest; and three letters of recommendation from individuals who can attest to their academic or professional competence and/or interest in pursuing graduate training in International Development.
5. 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 in a language other than English.
6. 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.
7. Selected courses offered by associated academic units departments at Saint Mary's University will be chosen from an approved list in consultation with the International Development Studies Co-ordinator.

Master of Arts in Philosophy

Chairperson, Associate Professor	S. Crooks
Associate Professor, Undergraduate Advisor	M. Mercer
Professor, Graduate Co-ordinator	S. Wein
Associate Professor	P. March
Assistant Professors	R. Ansell, J. MacKinnon
Professors Emeriti	R. Beis, A. Monahan, W.A. Stewart, S.J.

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 available at the Department's website.

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 three letters of reference. In addition, applicants must have identified a topic for their research.
- c. The Departmental Graduate Studies Committee will review applicants' files and make recommendations to the Department on admissions. The Committee must be satisfied that there is a member of

the Department able and willing to act as a thesis supervisor. The Department will make final decisions on admissions.

2. Degree Requirements

- a.** The student will take a total of three (3.0) credits at the 600-level, and in addition will write a thesis (697.0 Master's Thesis). Typically graduate students will attend undergraduate classes, and 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 formal thesis proposal to the Departmental Graduate Studies Committee. 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 and authorize each student to proceed with the writing of the thesis. 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*.

- 601.1(.2) Honors/Graduate Seminar
 602.1(.2) Philosophy of Language: Meaning
 603.1(.2) Philosophy of Language: Speech Acts
 604.1(.2) Theory of Knowledge: Foundations
 605.1(.2) Theory of Knowledge: Ethics of Belief
 611.1(.2) Political Thought: The Classic Texts
 612.1(.2) Contemporary Political Philosophy
 616.1(.2) Advanced Logic and Methodology
 625.1(.2) International Justice
 642.1(.2) Early Modern Philosophy: The Rationalists
 643.1(.2) Early Modern Philosophy: The Empiricists
 644.1(.2) Later Modern Philosophy: Kant
 645.1(.2) Greek Philosophy: The Presocratics and Plato
 646.1(.2) Greek Philosophy: Aristotle and the Hellenists
 647.1(.2) Later Modern Philosophy: The German Idealist
 648.1(.2) Aesthetics: The Classical Tradition
 649.1(.2) Aesthetics: Contemporary Debates
 652.1(.2) Philosophy of Science
 654.1(.2) Philosophy of History
 655.1(.2) Existentialism: The 19th Century
 656.1(.2) Existentialism: The 20th Century
 665.0 Analytic Philosophy
 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
 697.0 Master's Thesis

Master of Arts in Women's Studies

(offered jointly by Mount Saint Vincent University, Dalhousie University, and Saint Mary's University)

Faculty

Co-ordinator of Graduate Program S. Bell
 in Women's Studies (Saint Mary's)

The following faculty members across the three universities are available to serve as student supervisors in the Master of Arts in Women's Studies:

J. Auger (Acadia)	Sociology
P. Baker (MSVU)	Sociology/Social Anthropology
J. Bankier (Dal)	Law
P. Barber (Dal)	Sociology/Social Anthropology
S. Batt (Dal)	Health and Environment
B. Bednarski (Dal)	French
S. Bell (SMU)	Sociology and Criminology
W. Bernard (Dal)	Social Work
C. Brown (Dal)	Social Work
S. Bruhm (MSVU)	English
M. Byers (SMU)	Sociology
S. Campbell (Dal)	Philosophy
L. Carbert (Dal)	Political Science
J. Cauville (SMU)	Modern Languages
L. Christiansen-Ruffman (SMU)	Sociology/IDS
D. Crocker (SMU)	Sociology and Criminology
S. Crooks (SMU)	Philosophy
J. Crowley (Dal)	History
A. Dalton (SMU)	Religious Studies
M. Delaney (MSVU)	Psychology
J. Déléas (MSVU)	Modern Languages/Fine Arts
A. Dobrowolsky (SMU)	Political Science
J. Downie (Dal)	Health Law
F. Early (MSVU)	History
D. Evenden (MSVU)	History
J. Fingard (Dal)	History
S. Finson (AST)	Pastoral Theology
P. Fitzgerald (SMU)	Management
B. Frank (MSVU)	Education
D. Ginn (Dal)	Law
D. Glowacha (Kings)	English
J. Gordon (MSVU)	Sociology/Anthropology
S. Hamilton (MSVU)	Women's Studies
T. Heffernan (SMU)	English
R. Hulan (SMU)	English
L. Jackson (Dal)	Health
J. Jarman (Dal)	Sociology/ Anthropology
W. Katz (SMU)	English
B. Keddy (Dal)	Nursing
E. Keeble (SMU)	Political Science
L. Kowalchuk (SMU)	Sociology
T. Laidlaw (Dal)	Medical Education
C. Luckyj (Dal)	English
M. MacDonald (SMU)	Economics
K. Macfarlane (MSV)	English
A. MacNevin (SMU)	Sociology
W. McKeen (Dal)	Social Work
C. Mathieson (MSVU)	Psychology
S. Medjuck (MSVU)	Sociology/Anthropology
R. Neal (Dal)	Social Work
L. Neilsen (MSVU)	Education
D. Norris (MSVU)	Human Ecology
I. Oore (Dal)	French
J. Parpart (Dal)	History/IDS
J. Peacock (NSCAD)	Art History

E. Phipps (Dal)	Economic
H. Ralston (SMU)	Sociology
M. Ralston (MSVU)	Women's Studies
B. Richard (Dal)	Social Work
J. Scrimger (MSVU)	Public Relations
N. Sharif (SMU)	Economics
S. Sherwin (Dal)	Philosophy
K. Side (MSVU)	Women's Studies
M. Stone (Dal)	English
E. Tastsoglou (SMU)	Sociology/IDS
G. Thomas (SMU)	Classics
G. Thomas (SMU)	English
J. Thompson (Dal)	English
E. Thornhill (Dal)	Law
S. Tillotson (Dal)	History
E. van Roosmalen (Dal)	Sociology/Social Anthropology
M. VanderPlaat (SMU)	Sociology and Criminology
D. Varga (MSVU)	Child and Youth Studies
R. Warne (MSVU)	Religious Studies
J. Wark (NSCAD)	Art History
R. Zuk (MSVU)	English

Consult the *Academic Calendars* of the three cooperating institutions.

Program

This degree is offered jointly by Mount Saint Vincent University, Dalhousie University, and Saint Mary's University. The degree will be granted jointly by the three cooperating universities, and each student's program will be approved by the Joint Graduate Admissions and Program Committee (GAPC). From January 2002 until December 2004, Dalhousie University has suspended its administrative involvement in this Program; hence, there is a moratorium on admissions at Dalhousie only and a withdrawal of Dalhousie's from participation in the administration of the program.

The Master of Arts in Women's Studies emphasizes the interdisciplinary basis of Women's Studies, its community linkage, and the emerging body of feminist theories and methodologies. Drawing on the collective resource of faculty members across the three universities, the program has the following areas of specialities: Feminism and Global Issues; Feminism and Cultural Studies; Feminist Environmental Issues; Feminist Literary Theory and Literary History; Feminist Studies of Language and Linguistics; Feminist Theory and Methodology; Gender and Development; Gender and Education; Lesbian/Bisexual/Queer Studies; North American Women's History; Women and Health; Women and Sexuality; Women and Social Change; Women and Religion/Spirituality; Women and Work; Women, Human Rights and Social Justice; Women, Race and Ethnicity; Women's Writing.

Admission Requirements

In addition to following normal university procedures for application to graduate programs, students must submit official transcripts, three letters of reference, and a supplementary application form. Application can be made to any of the three universities. Decisions on admission are made by the Interuniversity Joint Graduate Admissions and Program Committee (GAPC) for Women's Studies. Enrolment is limited. Admission will also be based on the availability of Women's Studies faculty with the expertise to supervise in the student's proposed area of research.

Program Requirements

The five (5.0) credit program includes both course work and thesis and can be pursued either full-time or part-time. It may be completed in twelve months but often requires two years.

Normally, the five (5.0) credit program will consist of:

GWS 698.0

GWS 699.0

GWS 630.1(.2)

Three core courses: one half (0.5) credit each including:

Community-Based Learning - GWS 631.1(.2)

Feminist Methodologies - GWS 602.1(.2)

Theories of Feminism - GWS 601.1(.2)

Although only two (2.0) core courses are required, it is strongly recommended that students take all three (for a total of 1.5 credits). If students do not take all three of these core courses, they should take an elective [one half (0.5) credit] which addresses fundamental approaches to feminism.

Elective(s): one (1.0) credit.

The electives can be chosen from graduate level courses offered by a range of departments at the three universities, in consultation with the student's faculty advisor.

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

GWS 601.1(.2) Theories of Feminism

GWS 602.1(.2) Feminist Methodologies

GWS 630.1(.2) Graduate Seminar (half-credit, meets throughout both semesters)

GWS 604.1(.2)-605.1(.2) and 606.0 Contemporary Issues in Feminism

GWS 609.1(.2)-611.1(.2); 612.0-613.0 Directed Study

GWS 614.1(.2)-615.1(.2) and 610.0 Directed Readings in Women's Studies

GWS 620.1(.2) Feminist Tradition in Scholarship

GWS 621.1(.2) Feminist Tradition in Contemporary Scholarship

GWS 631.1(.2) Community-Based Learning

GWS 698.0/699.0 Thesis

Graduate Diploma in Criminology

M. VanderPlaat, Co-ordinator

S. Bell, Graduate Co-ordinator

D. Crocker

A. Day

P. Erickson

V. Johnson

E. Keeble

R. Konopasky

E. Lee

J. McMullan

D. Perrier

S. Schneider

A. Schulte-Bockholt

S. Smith

V. Stinson

Sociology/Criminology

Sociology/Criminology

Sociology/Criminology

Psychology

Anthropology

Sociology/Criminology

Political Science

Psychology

Finance and Management Science

Sociology/Criminology

Sociology/Criminology

Sociology/Criminology

Sociology/Criminology

Psychology

Psychology

Admission Requirements

To be eligible for admission to this graduate diploma program, applicants must satisfy the following criteria:

- have an honors baccalaureate undergraduate degree in criminology (or equivalent); an honors baccalaureate undergraduate degree with a concentration in criminology (or equivalent); or an advanced major undergraduate degree (minimum of twenty 20 credits) with a concentration in criminology (or equivalent);
- have achieved a minimum cumulative quality point average of 3.33 in their overall academic record;

- c. submit official transcripts from recognized post-secondary academic institutions; and
- d. submit three letters of reference attesting to their academic abilities.
- e. All applicants whose native language is not English and whose undergraduate education or professional experience was conducted in a language other than English, must fulfil the language requirement as set out in the Academic Regulations and Information section of the *Calendar*.
- f. The Graduate Criminology Committee of the Department of Sociology will review the files of all applicants and make final decisions about admission into the Graduate Diploma in Criminology. Possession of the minimum qualifications does not guarantee admission.

Degree Requirements

Requirements for continuance in and graduation from the Graduate Diploma in Criminology. Students must:

- a. earn at least four (4.0) credits;
- b. achieve a minimum grade of B+ in all courses required of their program; and
- c. complete the course requirements within five years of formal admission to the program.

Program Requirements

The Graduate Diploma in Criminology requires a minimum of four (4.0) credits: two (2.0) core courses (as designated below) and two (2.0) elective courses (also so designated):

- a. Core Courses - two (2.0) credits:
CRM 600.0 Advanced Seminar in Criminology
CRM 501.1(.2) or CRM 601.1(.2) Advanced Criminological Theory
CRM 502.1(.2) or CRM 602.1(.2) Advanced Research Methodology in Criminology
- b. Elective Courses - two (2.0) credits:
CRM 603.1(.2)/CRM 604.1(.2) Advanced Topics in Criminology
CRM 605.0 Advanced Topics in Criminology
CRM 606.1(.2)/CRM 607.1(.2) Directed Readings in Criminology
CRM 608.0 Directed Readings in Criminology
CRM 609.1(.2)/CRM 610.1(.2) Selected Topics in Criminology
CRM 611.0 Selected Topics in Criminology

Graduate Courses

The following constitute the offerings in this graduate program. Details descriptions are found in Section 5 of this Academic *Calendar*.

- CRM 600.0 Advanced Seminar in Criminology
- CRM 601.1(.2) Advanced Criminological Theory
- CRM 602.1(.2) Advanced Research Methodology in Criminology
- CRM 603.1(.2)/604.1(.2) Advanced Topics in Criminology
- CRM 605.0 Advanced Topics in Criminology
- CRM 606.1(.2)/607.1(.2) Directed Readings in Criminology
- CRM 608.0 Directed Readings in Criminology
- CRM 609.1(.2)/610.1(.2) Selected Topics in Criminology
- CRM 611.0 Selected Topics in Criminology
- CRM 615.0 Thesis Research

Graduate Diploma in International Development Studies

Program Committee on International Development Studies

J. Chamard, Co-ordinator	Management
G. Cameron, Student Advisor	International Development Studies
A. M. Dalton	Religious Studies
S. Dansereau	International Development Studies
M. Doucet	Political Science
E. Keeble	Political Science
L. Kowalchuck	Sociology and Criminology
D. Leclaire	International Activities
H. McGee	Anthropology
R. McKinnell	International Development Studies
J. Morrison	History
N. Sharif	Economics
E. Tastsoglou	Sociology and Criminology
H. Veltmeyer	Sociology and Criminology
S. Wein	Philosophy
Adjunct Professors	C. Amaratunga, D. Black, J. Kirk, R. McKinnell, A. O'Malley, J. Parpart, R. Sargent, T. Shaw

Program

The graduate diploma program is based on a core of policy and practice oriented courses offered in International Development Studies and associated academic departments. It is aimed at professionals who do not require an advanced research program leading to the production of a thesis. It consists of four credits (4.0) and can usually be completed in a nine-month period. This interdisciplinary program of courses will be useful to practitioners at the level of government, international and non-government organizations, including business.

Admission Requirements

- a. Either an undergraduate degree and practical experience as a development practitioner or an undergraduate honors degree (or its equivalent) in International Development Studies or a closely-related field;
- b. an official transcript from a recognized post-secondary academic institution;
- c. at least two letters of reference attesting to the applicant's academic and/or professional competence, suitability, and relevant experience; and
- d. for applicants whose first native language is not English and whose undergraduate education was conducted in a language other than English, a minimum score of 550 on the TOEFL (or its equivalent).

A committee of IDS faculty members will review the completed files of each applicant and will make the final determination of admission to 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

Program Requirements

Each candidate must complete the following requirements:

- a. The two (2.0) credit core program, namely,
 - (i) IDS 543.1(.2) Conceptual Foundations, or IDS 601.1(.2) Dynamics of Development: Framework of Analysis and Practice
 - (ii) IDS 544.1(.2) Contemporary Issues, or IDS 602.1(.2) Dynamics of Development: Critical Issues
 - (iii) IDS 545.1(.2) The Project Cycle
 - (iv) Any other IDS Applied or Methods half (0.5) course at the 500 level or 600 level.

- b. The elective program, consisting of at least two (2.0) credits from the IDS graduate offerings. Permission to register for these courses must be received in writing in advance of registration from the Director of the Graduate Diploma Program. Courses must be selected to create an area of concentration from one of the program's five areas of specialization:
 1. Development Paradigms: Theory and Practice of International Development
 2. Gender and Development
 3. Popular Approaches to Development
 4. Environment and Development
 5. Enterprise and Development

- c. A minimum cumulative quality point average of 3.00 is required for graduation.

Note: Courses taken to fulfil the requirements of an undergraduate program cannot be used again to fulfil the requirements of the Graduate Diploma in IDS.

The offerings of this graduate program are found in the description of the Master of Arts (International Development Studies) and also in the I.D.S. Handbook, available from the Program Co-ordinator of this program.

Graduate Courses in Geography

Although the Department of Geography does not offer a graduate program, a number of graduate level courses are available. These are:

GPY 602.0 Directed Studies in Urban/Regional Geography
 GPY 603.0 Directed Studies in Environmental Geography
 GPY 604.0 Directed Studies in Marine Geography
 GPY 605.0 Directed Studies (General)
 GPY 612.1(.2) Directed Studies in Urban/Regional Geography
 GPY 613.1(.2) Directed Studies in Environmental Geography
 GPY 614.1(.2) Integrated Coastal Zone Management
 GPY 615.1(.2) Directed Studies (General)
 GPY 623.1(.2) Glacial Geomorphology
 GPY 624.1(.2) Directed Studies in Marine Geography
 GPY 632.1(.2) Social Geography of the City
 GPY 633.1(.2) Fluvial Geomorphology
 GPY 636.1(.2) Advanced Remote Sensing
 GPY 639.1(.2) Urban Historical Geography
 GPY 642.1(.2) Urban Planning
 GPY 643.1(.2) Natural Hazards
 GPY 652.1(.2) The Geography of Urban Transportation
 GPY 653.1(.2) Coastal Geomorphology
 GPY 686.1(.2) Concepts in GIS
 GPY 696.1(.2) Applications in GIS

For further information, please consult the Chairperson of the Department of Geography.

Graduate Programs: Commerce

The Faculty of Commerce offers two programs of study leading to a Master of Business Administration degree; also a program leading to a Doctor of Philosophy in Business Administration (Management) together with Masters programs in Finance; also in Co-operatives and Credit Unions. The Faculty also partners with the C.M.A..

Executive Master of Business Administration (EMBA)

Executive Director	H. Silverstein
Adjunct Professors	Timothy O'Neill, Alex Faseruk, Sanjay Sharma, Maurice Tugwell
Program Manager	Bonnie Kirby

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 integrative program that will enhance participants' ability to think across functional lines and understand better the "whole enterprise" in its global competitive situation.

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 and achieved a satisfactory score on 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 may be held prior to the commencement of classes, so that students are conversant in a computerized-learning environment and possess the quantitative skills expected.

Program Features

- 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.
- A global perspective of business will be developed with an International Business Trip as a required part of the program.
- 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.

Application Procedures

Applications to the Executive MBA program should be made as early as possible. Application material and program information may be obtained by contacting:

The Manager, Executive MBA Program
 Saint Mary's at the World Trace Centre
 Suite 801 - 1800 Argyle St
 Halifax NS B3J 3N8
 Tel (902) 420-5175
 Fax (902) 420-5284

Application information and forms are also available on the Internet at <http://www.smu.ca/academic/commerce/emba/apply.htm>.

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 1.

Curriculum

First Year: Required Courses

EMB 511.1(.2) Managerial and Financial Accounting
 EMB 512.1(.2) Organizational Behaviour and Theory
 EMB 513.1(.2) Strategic Marketing
 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 (See note a below)
 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
 EMB 647.1(.2) Entrepreneurship and Family Business

Summary: 15 required courses; 1 elective.

Note: (a) An International Business Trip of approximately 10 to 14 days is an integral and required part of this course and hence the EMBA Program

Evaluation

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

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 or re-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.

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-	= 2.67	= Below graduate standard
C	= 2.00	= Marginal Pass
F	= 0.00	= Failure
IP	= —	= In progress (Reserved for Research Projects.)

Custom-Designed Programs

Saint Mary's University can custom design the EMBA program to meet the needs of Canadian or international clients. Instruction can be offered on Saint Mary's premises or on the premises of the client. Program timetable is flexible.

Custom-designed programs observe the regular admission and program requirements and include the option of a specialized focus. Like the regular general program, specialized programs feature a cohort-driven, lock-step curriculum leading to the Master of Business Administration degree.

Master of Business Administration (MBA)

Director Ramesh Venkat
 Program Manager Jennifer Johnson

Program Objectives

The primary objective of the Master of Business Administration Program is to provide an intellectual and social environment in which students develop their potential as effective managers. The Saint Mary's MBA program will ensure that students develop an understanding of how the different functions of a business interrelate in the business situation. This is a priority in the student's educational experience that is achieved through the emphasis the program places on integration and business simulation activities as well as the focus placed on business strategy and policy. The program also provides students with the flexibility to design a program of study that is general in orientation or more focused and specialized.

Qualifications for Admission

Admission to the MBA program is competitive. Meeting minimum requirements does not guarantee admission to the program. The following are required for consideration for admission:

- Degree:** An undergraduate degree in any discipline with at least a "B" average. Official transcripts must be sent from each post-secondary institution attended by the applicant.
- GMAT:** A satisfactory GMAT score (average in the last two years has been 600, with 550 usually as the minimum). We use GMAT to evaluate both quantitative and verbal skills. A minimum competency in both areas is expected. GMAT essay scores should not be below 5.0. GMAT score must be less than five years old.
- English Language Proficiency:** The MBA program is fast-paced with much reading, report writing and team work. Strong English language proficiency is important for success in the program. Students whose native language is not English must submit a TOEFL, CAEL, or a CanTest score. A TOEFL score of at least 237 in the Computer-Based TOEFL (or 580 in the paper-based TOEFL) and a TWE score of at least 5.0 are required. A CAEL score of at least 70 is required. Alternatively, applicants can submit CanTest scores of at least 4.5, with no individual component score (oral communication, listening, reading and writing) below 4.0. TOEFL or CanTest scores must be less than two years old.
- Work Experience:** Full-time students should normally have at least two years of relevant post-degree experience. Co-op experience will be given consideration. Part-time applicants should normally have at least four years of relevant post-degree experience. A resumé detailing work experience, duration in each position, nature of responsibilities and contribution made to the employer is required.
- Motivation and Leadership Potential:** Through a combination of academic work, previous experience and extra-curricular activities, applicants must demonstrate a high level of motivation for success and leadership potential.

Test scores and undergraduate marks are evaluated for academic ability. The admissions committee will also look for leadership and managerial potential. In addition to evaluating the application, essays, test scores, reference letters and transcripts, the admissions committee may require a personal or telephone interview before a final decision is made.

While each of the five criteria listed above is important, the applicant's entire profile will be evaluated and suitability for our program will be judged. Sometimes strengths in one area can compensate for weaknesses in other areas. We encourage applicants to provide detailed resumé, thoughtfully written essays and any additional information that may assist the admissions committee in making a decision.

Application Procedures

Applications for admission to the MBA program should be made as early as possible, since admission is competitive. The application deadlines are as follows.

To Start Program in September:

- Canadian Applicants (full or part-time) - April 1
- International Applicants (except China) - February 1
- Applicants from China - January 31

To Start Program in January:

- Part-time Canadian or Landed Immigrant Applicants Only (part-time) - October 1

Application materials may be downloaded from www.smu.ca/mba or may be obtained by contacting the MBA Program Office at the following address:

Sobey MBA Program
Saint Mary's University
923 Robie Street
Halifax, Nova Scotia B3H 3C3
Canada
Tel: (902) 420-5002
Fax: (902) 420-5119
E-mail: mba@smu.ca

In order to be considered for admission to the program, the application file must have the following documents:

- a. Completed application forms.
- b. Two official transcripts from each post-secondary institution where courses or programs were taken. These include completed or incomplete degrees or diplomas, upgrading courses and professional certificates. Transcripts must be sent directly by the institution issuing the transcript and not by the applicant.
- c. Essays and short answers, as required in the application package.
- d. Current and detailed resume. Indicate job title, name of employer, duration of job, nature of responsibilities and contribution made to the employer, education, extra-curricular achievements, volunteer experience and skills. A chronological resumé is preferred.
- e. Official GMAT score report sent directly from ETS (Note: 0958 is the appropriate GMAT code for the Sobey MBA Program at Saint Mary's University).
- f. Students whose native language is not English must submit either an official TOEFL score report or a CanTest score report. (Note: 0958 is the appropriate TOEFL code for the Sobey MBA Program at Saint Mary's University).
- g. Two letters of reference using the forms provided in the application package. Referees must also write a letter in their official letterhead and attach a business card, if available. Referees should be current/former professors or current/former supervisors at work who can judge the applicant's suitability for graduate work and leadership potential. Friends and relatives should not be asked to write reference letters. Applicants can submit additional reference letters, if they wish.
- h. A non-returnable application fee of \$70.00.

Applications that do not contain all of the above items will **NOT** be processed. Please note that all documents must be originals or notarized.

Completed application forms and all supporting documents (items "a" to "h" in the above list) must be sent directly to:

Faculty of Graduate Studies and Research Tel: (902) 420-5089
Saint Mary's University Fax: (902) 496-8772
923 Robie Street
Halifax, Nova Scotia B3H 3C3
Canada

Once applications are submitted, contact the Sobey MBA Program if you need further information or need to find out the status of your application.

Financial Aid

In addition to Canada Student and other loans, financial aid is available through University scholarships and assistantships. The number of scholarships is limited and they are granted based on information provided in the student's application. Students do not apply for scholarships. Applications for assistantships should be made to academic departments in the Faculty of Commerce (see Section 6 for additional information).

Registration

A non-refundable confirmation of acceptance deposit of \$100.00 Canadian is applicable to the MBA program. This deposit will be applied to tuition fees on registration.

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. If possible, at least two courses from each year of the program will be offered in evening classes each semester. Subject to satisfactory enrolment, courses will also be offered during the summer sessions. Students may change to full-time status upon completion of all 500-level courses.

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 subjects. 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.

Non-Saint Mary's University Students

Special or visiting students, i.e., those wishing to study at Saint Mary's on Letters of Permission from their home institution are advised that the 500 and 600 level MBA courses are normally open only to Saint Mary's University MBA students. Students in other graduate programs at Saint Mary's or at another post-secondary institution can seek to gain permission from the MBA Director if they wish to enrol in an MBA course. Some courses have restricted enrolment.

Studying at Other Institutions

Saint Mary's University students may use a Letter of Permission to enrol in graduate courses at other universities and receive credit for the courses in the MBA degree. This flexibility enhances the opportunity for students to develop a program that best serves their careers and draws on the course offerings of other universities. Credit for courses completed using this option will only be granted for courses for which a B or better grade is obtained. In completing the MBA degree, for students enrolled in the regular program (see below) a minimum of six (6.0) credits must be completed at Saint Mary's.

Exemptions

Saint Mary's University students with significant academic preparation in functional business subjects may be eligible for exemption from selected foundation year courses. Candidates should contact the MBA Program Manager for details. This is to be done prior to the first registration for MBA courses.

Program Features

The Saint Mary's MBA provides an integrative foundation in management principles as well as the opportunity for specialized study in traditional functional areas of accounting, finance, human resource management, marketing, information systems, or in interdisciplinary subjects such as international business, or entrepreneurship. These elements are sequenced as follows:

Foundation Year

September: team building and orientation.

Fall Semester: analytical and managerial skill development; information technology

MBA 502.1	Managerial Economics and Decision Analysis
MSC 506.1	Statistics for Managers
MSC 521.1	Managing Information and Technology
ACC 540.1	Financial Accounting
MKT 571.1	Marketing Management
MGT 586.1	Leadership and Behavioural Processes

Winter Semester: external focus: global economy, hands-on experience

MSC 515.2	Operations Management
ECO 501.2	Economics of the Enterprise Environment
ACC 548.2	Managerial Accounting
FIN 561.2	Business Finance
MGT 585.2	Organizational Behavior
MBA 597.2	Business Research Methods

Non-Credit Requirements

All students are required to complete the following two non-credit courses. Full-time students should complete them by the end of the first academic year. Part-time students should complete them prior to graduation but after the 500-level courses are completed. For course descriptions, please see Section 5 of this *Academic Calendar*.

MBA 010.1(.2)	Professional Skills Development
MBA 020.1(.2)	Integrative Case Competition

The "s" (satisfactory) grade for these two courses will **not** be counted in the calculations of the cumulative quality point average required for graduation.

Executive Speaker Series

As part of MBA 010.1(.2), students are required to participate in the Executive Speaker Series. National and regional leaders from the public and private enterprises will address students on current management issues.

Summer: (optional)

Internship (for Canadian and Permanent Residents only), or Foreign exchange/study, or Elective courses

Advanced Study Year

The objectives of the second year are to foster further integration of functional studies, to develop research skills, and to provide the opportunity for specialized study in a functional or interdisciplinary field of management.

The second year consists of a minimum of five (5.0) credits. Required courses are as follows:

0.5 credit	Any international elective course
MBA 601.1(.2)	Integrative Management Exercise
MGT 689.1(.2)	Strategic Management
MBA 698.1(.2)	Management Consulting Project (MCP) or
XXX 699.0	Management Research Project (MRP)

This full credit course can be taken in one of the following subject areas: ACC, ECO, FIN, MGT, MKT, or MSC.

In addition, five or six (2.5-3.0 credits) 600-level elective half courses, (depending upon whether the student opts for the Management Research or Management Consulting Project), are selected to support generalist or specialist study in a functional or interdisciplinary area of management. Students are permitted to register in an area of concentration or pursue a program of general studies. A concentration consists of a minimum of two (2.0) credits of approved courses in one of the areas listed below:

1. Accounting (see MBA-CMA information below)
2. Finance
3. Human Resource Management
4. Marketing
5. International Business
6. Information Systems
7. Small Business and Entrepreneurship

Information on approved courses for each concentration may be obtained from the MBA office. Students must formally declare their area of concentration for this to be noted on their academic record. It is recommended that students select a topic for their Research or Consulting Project that complements their area of concentration.

Note: Second year students are expected to participate in the Executive Speaker Series. Career planning and development workshops are offered to graduating students.

Joint MBA-CMA Program

Director	Ramesh Venkat
Program Manager	Jennifer Johnson

Saint Mary's University has entered into an agreement with CMA Nova Scotia that will permit students to earn the Certified Management Accountant designation (CMA) and the Master of Business Administration degree concurrently. This program is unique in Canada and designed for part-time students. It will normally require 36 months to complete. Interested applicants must visit the CMA website for in-depth information about the MBA-CMA application procedures and to obtain the application package at www.cmans.com.

MBA-CMA Qualifications for Admission

1. **Degree:** An undergraduate degree from a recognized university in commerce, business or management. A minimum average of "B" is expected. Official transcripts must be sent from each post-secondary institution attended by the applicant along with the application.
2. **CMA Entrance Exam:** Applicants must pass the CMA Entrance Exam in order to qualify for admission to this joint program.
3. **Employment:** Applicants must be employed full-time or demonstrate a plan for full-time employment concurrent with the MBA-CMA program in appropriate, progressive management accounting roles.

MBA-CMA Application Procedures

1. Visit www.cmans.com for a complete application package and detailed information.

2. Submit all application materials to CMA Nova Scotia.
3. The complete files for those who pass the CMA Entrance Exam will be forwarded to the MBA Program Office for processing.
4. Admission to the MBA-CMA Program will be confirmed in writing through the Office of The Faculty of Graduate Studies and Research at Saint Mary's University.
5. Questions concerning application procedures should be directed to the CMA Nova Scotia Office located on Brunswick Street in Halifax. (902) 422-5826, ext. 23.

MBA-CMA Program Requirements

1. Students must satisfy all requirements of both CMA Nova Scotia and Saint Mary's University. No designation will be awarded unless and until all MBA requirements have been met and no degree will be awarded unless and until all CMA requirements have been met.
2. Candidates will be required to complete seven (7.0) credits (as listed below) to earn the MBA degree.
3. Six (6.0) of the seven (7.0) credits must be taken at Saint Mary's University. A minimum quality point average of 3.0 is required for graduation from the MBA degree.
4. To meet the requirements for the CMA designation, candidates must obtain a minimum of 60% in the nationally marked CMA case study, "Report to the Board," the capstone of the CMA program. Candidates must satisfy CMA Nova Scotia's practical experience requirements.

Required courses for the MBA-CMA Program:

1. ACC 626.1(.2) Management Information Systems: Strategy and Practice
2. ACC 650.1(.2) Integrative Managerial Accounting I
3. ACC 652.1(.2) Integrative Managerial Accounting II
4. MGT 682.1(.2) Performance Management
5. MGT 689.1(.2) Strategic Management
6. MKT 679.1(.2) Strategic Marketing
7. MSC 615.1(.2) Strategic Design and Improvement of Operations
8. FIN 663.1(.2) Financial Management
9. MBA 698.1(.2) CMA Board Report*

*Students must complete courses 1-8 before attempting the CMA Board Report

10. MBA 601.1(.2) Integrative Management Exercise
11. ACC 690.1(.2) Seminar in Accounting
- 12.-14. one and one half (1.5) elective credits at the 600 level.

All applicants to the joint MBA-CMA Program should correspond with the CMA Nova Scotia Office. Once admitted to the program, routine questions may be directed to the MBA Program Office at Saint Mary's University.

Master of Finance (MFI)

Francis Boabang, Co-ordinator Finance and Management Science

Objectives

The objective of this program is to prepare graduates for professional careers in finance as financial analysts (CFA) or portfolio managers. This is achieved through a combination of classroom instruction, interaction with practitioners in Halifax and Toronto, and hands on use of financial data and proprietary financial management software. Saint Mary's is the only institution with FRI software used by banks, insurance companies and government banks worldwide to manage their portfolios.

Admission Requirements

Admission requirements for the Master of Finance are:

1. 4 year university degree in mathematics, engineering, physics, economics or other mathematical discipline.
2. B average (75%) or higher in undergraduate studies.
3. TOEFL score of at least 550.
4. 2 letters of reference.
5. Successful interview with Saint Mary's University representative. Enrolment is limited. Preference will be given to candidates who exceed the above minimums and those who have relevant work experience.

Applications must be made through:

Can-Zhong Consulting Services Ltd.
2362 Oliver Crescent
Vancouver, BC
Canada, V6L 1S5

or one of Can-Zhong's authorized partners. Applications may **not** be made directly to Saint Mary's University.

Program Requirements

The program begins with an intensive eight week session of English language instruction and an introduction to Canadian culture. This is followed by a semester of foundation courses and two semesters of rigorous finance study.

Months 1 and 2

English as a Second Language
Introduction to Canadian Culture and Academic System

1st Semester – Months 3 to 6

MFN 500.1(.2) Economics of the Enterprise
MFN 501.1(.2) Economics of the Enterprise Environment
MFN 540.1(.2) Financial Accounting
MFN 603.1(.2) Statistical Applications in Management Science
MFN 641.1(.2) Financial Statement Analysis
MFN 663.1(.2) Financial Management

2nd Semester – Months 7 to 10

MFN 609.1(.2) Business Forecasting
MFN 664.1(.2) Corporate Finance
MFN 667.1(.2) Futures and Options
MFN 668.1(.2) Investments and Portfolio Management
MFN 670.1(.2) Fixed Income Securities
MFN 671.1(.2) Financial Institutions

3rd Semester – Months 11 to 14

MFN 669.1(.2) Risk Management
MFN 676.1(.2) International Business Finance and Banking
MFN 690.1(.2) Special Topics in Finance and Research Methods
Finance Workshop: CFA Exam Preparation
MFN 692.0 Management Research Project

Fees

Tuition fees cover all instructional costs, but do not include books, living expenses and health insurance.

Master of Management-Co-operatives and Credit Unions (MMC)

Co-ordinator, John Chamard Management

The MMCCU program is a distance learning (WebCT-based) program designed to allow managers of co-operatives and credit unions to study while they work and to develop the skills needed to run a co-operative business in a rapidly shrinking world.

MMCCU draws its students, faculty and research from around the globe. Students will find themselves working with others from different countries and different co-operative backgrounds to develop approaches to co-operative management that are both sensitive to the principles of co-operation and based on a hard-nosed assessment of reality.

The program has as its premise that co-operation among co-operatives is not only “nice” but is essential to ensuring that globalization does not leave co-operative business on the periphery of the economy.

Doctor of Philosophy in Business Administration (Management)

Director Albert J. Mills

The Ph.D. program focuses on the area of management, which is broadly defined as encompassing the traditional areas of Organizational Behavior, Organizational Development, Organizational Theory, Human Resources, and Industrial/Labor Relations.

The program is designed to be completed in 48 months. Coursework is completed within 15 months of enrollment with comprehensive exams completed no later than 28 months into the program. The remaining time in the program is expected to vary depending on the nature of the dissertation research.

Program Structure

The program comprises three inter-related elements: coursework, comprehensive examinations and dissertation.

Courses

The courses are divided into the foundation courses and the functional core.

Foundation Courses

MGT 701	Management Thought and Management Environment
MGT 702	The Nature of Management Research
MGT 703	Qualitative Research Methods
MGT 704	Quantitative Research Methods

Functional Core

MGT 710	Doctoral Seminar in Human Resource Management
MGT 720	Doctoral Seminar in Organizational Theory and Design

Any 2 of the following:

MGT 730	Directed Readings in Management I
MGT 740	Directed Readings in Management II
MGT 705	Multivariate Statistics for Management Research

The complete set of courses comprising the Ph.D. program (excluding the comprehensive exams and dissertation) is offered in the first four semesters of enrollment. That is, students complete 3 courses in the first summer,

one reading course in each of the fall and winter semesters and 3 courses in the second summer of the program.

The standard pattern of course offerings is:

1st semester

MGT 701	Management Thought and Management Environment
MGT 702	The Nature of Management Research
MGT 710	Doctoral Seminar in Human Resource Management

2nd semester

MGT 730	Directed Readings in Management I
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3rd semester

MGT 740	Directed Readings in Management II
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4th semester

MGT 703	Qualitative Research Methods
MGT 704	Quantitative Research Methods
MGT 720	Doctoral Seminar in Organizational Theory and Design

The scheduling of the two directed reading courses may vary with individual students.

Comprehensive Examinations

On completion of all coursework requirements, and no later than 28 months after admittance to the program, each student must complete a set of comprehensive examinations. Both examinations must be completed in the same semester. Students may undertake the comprehensive examinations in any semester following the completion of all Foundation and Functional courses.

These comprehensive examinations will take the form of a set of written examinations, set by the Comprehensive Examining Committee. The Examining Committee reserves the right to require an oral examination subsequent to the written portion of the exam. Normally, students will be permitted two attempts at the comprehensives. Successful completion of the comprehensives will move the students to the status of “Ph.D. Candidate”.

The purpose of the two comprehensive examinations is to verify that the student possesses both breadth and depth of knowledge in the areas defined by the Functional and Foundation courses described above.

Dissertation

The dissertation requirement is for the successful defence of an original doctoral thesis worthy of publication in reputable academic journals, defended orally before authorities in the discipline, appointed by the Faculty of Graduate Studies and Research. The oral defence will be public. The thesis defence must take place within 48 months of successful completion of the comprehensive examinations.

Residency and Method of Delivery

Students are required to fulfill the equivalent of two semesters of full-time residency. Normally, these semesters will be in the spring/summer period and are composed of intensive classes that run from the beginning of May to the end of June. The months of July and August are devoted to research projects, including the writing of major papers.

The scheduling of required classes during the period of May-June is designed to make the program more accessible to non-traditional doctoral students.

Advisor/Supervisor

In admitting students to the program, the Ph.D. Program Council will take into account the availability of potential dissertation supervisors.

Applicants to the program are encouraged to seek out potential advisors/supervisors prior to admittance to the program. On entry to the Ph.D. program, students will be assigned an advisor who will assist in the development of the student's dissertation topic. The advisor will be appointed on the basis of his or her expertise in relation to the student's dissertation at the time of entry, and will normally be expected to become the dissertation supervisor. Where a successful applicant has already identified an appropriate supervisor, every effort will be made to ensure that he or she is appointed as the advisor/supervisor.

Note: The Ph.D. Advisor/Supervisor should normally be a tenured faculty member at Saint Mary's University or other post-secondary institution in Atlantic Canada. In the latter case, such faculty must be recommended by the Faculty of Graduate Studies and Research as Adjunct Professors at Saint Mary's University.

Admissions

Decisions regarding admission to the doctoral program will be made on the basis of the applicant's academic qualifications and achievements, fit with the program's areas of specialization and the availability of an appropriate supervisor. To that end, all of the following will be taken into account:

- *Qualifications:* Students entering the doctoral program must have a Master's degree from a recognized university. Normal minimum requirements for admission are a grade/quality point average of 3.6 on a 4.0 scale (high B+ to A-).
- *Business studies:* At least a minimum breadth in business studies is expected. Ideally, applicants should have an undergraduate and/or Masters degree, which includes a substantial business studies element (e.g., a Bachelor of Commerce, Masters of Business Administration). Students without previous degrees in management education may be admitted as "qualifying" students but could be required to undertake selected management in addition to the normal requirements of the Ph.D. program.
- *GMAT/GRE:* Candidates are required to provide scores from the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE). The minimum requirement is the equivalent of a GMAT score above 600.

- *Proposal:* At the time of application, prospective students should submit a four-page outline of his or her proposed area of research. (The proposal is designed to help the Admission Committee to determine the research "fit", as well as the research potential, of each applicant).
- *Letters of Recommendation:* All applicants are required to submit three letters of recommendation from persons capable of assessing the candidate's academic ability and research potential.
- *Career Objectives:* A statement of career objectives is required.
- *University Transcripts:* Official transcripts from all universities attended (sent directly by the granting institution) are required at the time of application.
- *English:* Applicants whose native language is not English must submit a TOEFL, CAEL or CanTest score. A TOEFL score of at least 237 in the computer-based TOEFL (or 580 in the paper-based TOEFL) and a TWE score of at least 5.0 are required. A CAEL score of at least 70 is required. Alternatively, applicants can submit CanTest scores of at least 4.5 with no individual component score (oral communication, listening, reading and writing) below 4.0. TOEFL, CAEL or CanTest scores must be less than two years old.

These would be the normal minimum requirements, but each case would be evaluated on its own merits. However, applicants will not be evaluated for admittance where any of the required elements have not been submitted at the time when the application is being considered.

Fellowships

A limited number of fellowships are available to students who are not in full-time paid employment. Request for a fellowship should be made at the time of application.

Website

Further information can be found on our website: <http://www.smu.ca/phd>.

Graduate Programs: Science

The Faculty of Science offers four graduate programs in the areas of Astronomy, Applied Psychology, and Applied Science.

Master of Science in Astronomy

Chairperson, Professor	M. Bulter
Professors	D. Clarke, R. Deupree, D. Guenther, G. Mitchell, D. Turner, G. Welch
Associate Professors	J. Hahn, A. Sarty
Assistant Professor	I. Short
Observatory Director	G. Welch
Graduate Co-ordinator	D. Guenther
Adjunct Professors	P. Bennett, A. Coley, M. Jain, P. Noerdinger
Emeritus Professor	W. Lonc

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 imaging 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, globular clusters, the cluster distance scale, interstellar reddening in the galactic disk, the origin and structure of early-type galaxies, radio interferometric observations of extragalactic radio sources and their environs, and large-scale structure of the universe. 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 utilizes change-coupled device (CCD)

imaging and spectroscopy obtained from various sites, the Sudbury Neutrino Observatory, the Very Large Array radio interferometer in the U.S., and the James Clerk Maxwell and other mm - wave radio telescopes.

Theoretical research makes use of a powerful internal computer network recently funded by the Canadian Foundation for Innovation as well as Cray-class supercomputers accessed remotely from internal 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 computer-controlled 40-cm reflecting telescope equipped for direct imagery and spectroscopy with CCD cameras. The 40-cm reflector is the largest professional telescope in Atlantic Canada and is 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-wide NOVANET system provide students and faculty with access to extensive library collections of books and journals in physics and astronomy. These resources are supplemented by faculty subscriptions to additional key journals, and a variety of electronic preprint services. The Saint Mary's community has high-speed Internet access (Web home page <http://www.stmarys.ca>) and connections from students faculty offices to central DEC-alpha servers. The Department operates its own computing network (<http://apwww.stmarys.ca>) based on a multi-processor Sun SPARC server, with a number of UNIX - and WINDOWS NT-based workstations for students and faculty. Peripherals include a large format high-resolution scanner, several color and b/w laser printers, and a growing electronic library of catalogs and sky surveys. Available data reduction and analysis software includes IRAF, VISTA, SPECX, CLASS, AIPS, SUPERMONGO, and IDL.

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. Applications for the graduate program received by February 28 will be given the highest priority.

Part-Time Students

Under special circumstances, students may enrol in the program on a part-time basis. In addition, full-time students may change their status to part-time should circumstances warrant the change. While entrance requirements are the same for all students regardless of their registration (i.e., full- or part-time), part-time students are not normally eligible to receive financial assistance from the department.

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. If desired, course work may be concentrated in the first two or three semesters so that students may work almost exclusively on their thesis during the summers and the final one or two semesters.

Full-time students must complete at least three (3.0) credits per year, for a total of six (6.0) credits over two years. Of these six (6.0) credits, students must take AST 695.1(.2) (Graduate Seminar I), AST 696.1(.2) (Graduate Seminar II), AST 697.0 (Research Project in Astronomy), AST 698.0 (Thesis), and three (3.0) additional credits drawn from the AST half courses numbers 430 or greater or from the upper-year courses offered in Physics, Mathematics, or Chemistry (where recommended by the student's supervisor). Normally, AST 695.1(.2) is taken in the first year and AST 696.1(.2) in the second year. AST 697.0 may be taken in either the first or second year, while AST 698.0 is taken when the student has passed the oral comprehensive examination. To be eligible for graduation, students must achieve an overall grade of at least B (qpa = 3.00) on courses taken for 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, including first-year undergraduate Physics. The examination is normally taken at the end of the first year of study. Students must also prepare and defend an original thesis on a topic selected by the student and the student's supervisor. The thesis shall be examined by a committee of no

fewer than three faculty from Saint Mary's University plus, when available, one member external to the University and competent in the subject area of the thesis. The student will be examined on the thesis by the committee in a formal oral thesis defence normally scheduled near the end of the second year of study.

Full-time students are normally accepted into the program with provisions for support from various sources, including graduate scholarships, University teaching assistantships, and research assistantships drawn from faculty grants. The normal level of support is usually sufficient to cover living expenses and tuition for one person.

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 *Academic 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 607.1(.2) Binary and Variable Stars
- AST 608.1(.2) Selected Topics in Astronomy and Astrophysics
- AST 609.1(.2) Galaxies Beyond the Milky Way
- AST 611.1(.2) Directed Readings in Current Literature
- AST 614.1(.2) Stellar Astrophysics I
- AST 615.1(.2) Stellar Astrophysics II
- AST 616.1(.2) Astronomical Instruments and Techniques
- AST 619.1(.2) Cosmology
- AST 620.1(.2) Clusters of Galaxies
- AST 622.1(.2) Astrophysical Dynamics
- AST 635.1(.2) Computational Methods
- AST 637.1(.2) Astrophysical Hydrodynamics
- AST 695.1(.2) Graduate Seminar I
- AST 696.1(.2) Graduate Seminar II
- AST 697.0 Research Project in Astronomy
- AST 698.0 Thesis
- AST 699.0 Doctoral Dissertation

Doctor of Philosophy in Astronomy

Overview

Students admitted into the Ph.D. program will take lecture courses, participate in graduate seminars, and write and defend a dissertation. Normally students admitted with an Honour's B.Sc. degree will complete their course work in the first two years and finish their dissertation by the end of their fifth year. At the end of the second year students are required to pass a written exam and defend a dissertation proposal. The written exam will consist of questions drawn from the faculty and will cover all aspects of the student's graduate level training and may include some scientific questions of a more general nature. The written exam, common to nearly all astronomy programs in North America, is used to test the student's readiness for more advanced studies and research. The dissertation proposal helps the student define and prepare for their thesis research.

Students entering with a M.Sc. degree may obtain course credit for similar courses they have already completed with a grade B or higher. Those students entering the program with a M.Sc. degree will complete their course work and finish their dissertation by the end of the fourth year. Even though a student entering the program may receive sufficient course credits to satisfy the minimum course requirements, they must complete at least 1.0 course credits during their residency in the program.

Admission Requirements

(a) Full-Time Students

Graduate students in Astronomy come from diverse university backgrounds. Although it is desirable for students pursuing an advanced degree in Astronomy to have had some exposure to astronomy courses at the undergraduate level, it is not necessary. Depending on the student's background, a student may be required to take some undergraduate courses in physics and/or astronomy.

Students are required to have at least an honors B.Sc. degree in Mathematics, Physics, Astronomy or equivalent to be admitted into the graduate program.

Students who already have a M.Sc. degree in Astronomy will normally be given credit for the graduate courses they have completed with a grade B or higher that are equivalent to the courses required by the Ph.D. program. 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.

Students may transfer from a M.Sc. program (uncompleted) to the Ph.D. program. They will be given credit for the graduate courses they have completed with a grade B or higher that are equivalent to the courses required by the Ph.D. program.

Applications for admission must include two letters of recommendation from faculty familiar with the student's work, one of whom must be someone who has supervised the student in research (e.g., honors or Masters thesis supervisor).

(b) Part-Time Students

Under special circumstances, students may enrol in the program on a part-time basis. In addition, full-time students may change their status to part-time should circumstances warrant the change. While entrance requirements are the same for all students regardless of their registration (i.e. full-time or part-time), part-time students are not normally eligible to receive financial assistance from the Department.

Ph.D. Degree Astronomy Requirements

Students are required to take a total of five (5.0) credits of graduate level courses in astronomy and physics (Note: at Saint Mary's University, one (1.0) courses correspond to a full year course, and 0.5 courses correspond to a one semester course). In addition, students are required to take Graduate Seminar I (0.5 credit) during their first year and Graduate Seminar II (0.5 credit) during their second year. At the end of the second year students are required to pass a comprehensive written exam and an oral presentation of their dissertation proposal. Students are required to complete an original Ph.D. dissertation (9.0 credits). The Ph.D. dissertation is normally started in the third year and completed by the end of the fifth year. The dissertation must be defended.

Graduate Courses

See Section 5 of this *Academic Calendar* for a list of courses and their descriptions.

Core courses will be offered every other year. Depending on the student's area of interest and background, they might be advised to take some physics courses, which may either be taken at Saint Mary's University or Dalhousie University. All courses except for the dissertation courses are 0.5 credit (equivalent to 3 hours of lectures per week for one semester).

Core Course offerings

This graduate program consists of a two-year teaching cycle in which three graduate courses are taught in the fall term and two in the winter term. Ph.D. students will normally complete all their lecture course requirements in two years.

Master of Science in Applied Psychology

Chairperson, Professor	V. Catano
Graduate Co-ordinator, Associate Professor	A. Day
Professors	J. Darley, A. Day, K. Hill, R. Konopasky, V. Stinson
Associate Professors	P. Street, B. Vulcano
Assistant Professors	J. Cameron, M. Fleming, L. Francis, D. Gillis, S. Smith
Adjunct Professors	L. Methot, S. Newsome
Professor Emeritus	J. Chadwick-Jones

The Department of Psychology offers a Master of Science in Applied Psychology in 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

requirements within three years. 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. 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. Further information can be obtained from the Graduate Program Co-ordinator.

Industrial/Organizational Psychology

The program in Industrial/Organizational Psychology prepares students to examine and understand the behaviour 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, and to acquire skills that 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 [the equivalent of ten (10.0) credits 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(s), letters of reference, and Graduate Record Exam scores (verbal, quantitative, analytical, and psychology) must be forwarded to the Director of Admissions no later than **February 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 Chairperson 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 (4.0) credits, 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), PSY 605.1(.2) (Personnel Psychology) and PSY 625.1(.2) (Organizational Psychology).

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 (3.0) credits]. 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 a Thesis Committee, which shall consist of the student's advisor, one other member of the Department, and a third person from outside the Department. Any outside member must be approved by the Department on the advice of the supervisor. 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 (3.0) credits by a part-time student. Each thesis must be approved by the student's Thesis Committee and an external examiner.

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, research experience, and letters of reference. Graduate assistantships are also provided by the Department as remuneration for assisting professors in course and lab instruction.

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

601.0 Advanced Psychological Statistics and Research Design
 603.1(.2) Advanced Assessment
 605.1(.2) Personnel Psychology
 606.1(.2) Neuropsychological Assessment
 610.1(.2) Applied Multivariate Analysis
 620.1(.2) Topics in Engineering Psychology
 625.1(.2) Organizational Psychology
 630.1(.2) Attitude and Persuasion
 640.1(.2) Field Research Methods
 670.1(.2) Special Seminar: Topics
 690.0 Practicum and Directed Readings
 695.0 Thesis

Master of Science in Applied Science with Co-operative Education Option

Co-ordinator	Dr. David H. S. Richardson Dean of Science
Program Committee:	
Z. Dong	Biology
P. Giles	Geography
P. Jutras	Geology
N. Linney	Mathematics & Computing Science
S. Sivakumar	Finance & Management Science
K. Singfield	Chemistry
M. Lamoureux	Environmental Science
W. Jones	Acting Dean of Graduate Studies and Research (ex-officio)

1. Introduction

The M.Sc. in Applied Science is an interdisciplinary degree program in Applied Science with a Co-op option. Its objectives are to provide students with (1) training in analytical and numerical methods, use of graphics, visualization and multi-media tools, the acquisition, processing and analysis of large data sets and (2) the opportunity to undertake a research topic that involves the application of these techniques to solving applied scientific problems, related to the environment, natural resources, and the high-tech industry. The program is offered by faculty members from Biology, Chemistry, Geology, Mathematics and Computing Science, and Engineering (Faculty of Science); Geography (Faculty of Arts); and Finance and Management Science (Faculty of Commerce). The Program is flexible with a Co-operative Education option. Full-time or part-time studies are possible.

This M.Sc. will emphasize that the interdisciplinary approach and external organizations play a very important role in the program through the development of collaborative research topics and the provision of placements for co-op students. Joint supervision of students is encouraged as is inter-departmental co-operation and interdisciplinary research topics. State-of-the-art analytical and other facilities are available.

2. Admission

Applicants must satisfy the following two conditions to be eligible for admission to this Master of Science degree program:

- (i) have earned an honors baccalaureate degree in Science (or the equivalent).
- (ii) have achieved a minimum grading average of B (or equivalent) in their overall academic record.

3. Application

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

b. All applicants whose native language is not English and whose undergraduate education was conducted in a language other than English must fulfill the language requirement as set out in the relevant section of this *Academic Calendar* (See Section 2).

c. Applicants who wish to be considered for a Graduate Fellowship should so state in a covering letter attached to their curriculum vitae.

As admission to the Program is competitive, students are encouraged to apply by **February 1st**. Candidates will be considered after this date on an individual basis. Each application should be accompanied by a letter from the proposed supervisor providing details of planned funding and any industrial partnerships. The Program Committee will then recommend admission into the M.Sc. in Applied Science program to the Program Co-ordinator. Applicants received after this date will be reviewed periodically by the Program Committee.

4. Degree Requirements

a. Course Work (3.0 credits)

All course work must be approved by the Program Committee before the student is eligible to register for any course(s).

- (i) APS 600.0 Graduate Seminar (1.0)
- (ii) APS 601.1(.2) Interdisciplinary Techniques I (0.5)
- (iii) APS 602.1(.2) Interdisciplinary Techniques II (0.5)
- (iv) the equivalent of one (1.0) credit closely related to the thesis topic. (See subsection 10 below.)

b. Thesis (1.0 credit)
APS 603.0 Thesis

c. (i) Co-operative Education Option

Two (2.0) co-op work terms (2.0 credits).

These work terms will be in a cognate field but not necessarily directly related to the thesis. The co-op work term will involve work that is appropriate to the Program and must be approved by the Program Co-ordinator.

(ii) Non Co-operative Education Option

Two (2.0) additional credits of course work, a maximum of one (1.0) of which may be transferred from another institution. (See subsection 10 below.)

Summary:

- a.** Co-op Option: four (4.0) credits and two (2.0) co-op work terms. Total: six (6.0) credits.
- b.** Non Co-op Option: six (6.0) credits.

5. Requirements for Continuance and Graduation

a. Students must achieve a minimum cumulative quality point average of 3.00.

b. All degree requirements must be completed by all students, whether studying on a full or part-time basis, within six (6) years of initial registration in the Program. The normal duration of the Program for full-time students is two years.

6. Supervisory Committee

A Supervisory Committee will be assigned to each student and will consist of three members: the supervisor and two other faculty members, no more than two members can be from the same department. The Supervisory Committee must be approved by the Program Committee.

7. Thesis Committee and Thesis

A Thesis Committee will be established for each student and will consist of a Thesis Supervisor and at least two other members, one of which may be a representative of a partnering organization. Not all three members can be from a single department. A Thesis Committee will be established for each student and may include one representative of a partnering organization. The Thesis Committee is the body that recommends and approves the courses, work term assignments, and thesis topics. This Committee will define course work to be carried out September-December and January-April of the first year, during which time students will spend approximately 30% of their time getting started on research work. The Thesis Committee will meet at least once a semester to review progress.

Thesis:

a. The thesis must show both originality and the analytical/critical skills of research and interpretation.

b. A Thesis Proposal must be submitted to and approved by the Thesis Committee and the Program Committee within eight months of starting the program. An annual progress report must be given via an oral presentation to the Thesis Committee and a written version submitted by June 1st to the Program Co-ordinator and to the Dean of Graduate Studies and Research.

c. Continuance in the program will be dependent on satisfactory progress.

d. Each candidate must defend his/her thesis before an Examining Committee consisting of the Thesis Committee and an external reader (examiner). The Dean of Graduate Studies and Research will attend the defense. The Program Co-ordinator (or a representative of the Dean of Science's office) will attend and chair the defense. The external examiner will be nominated by the Thesis Committee and approved by the Program Committee and by the Dean of Graduate Studies and Research.

e. The defense of a candidate's thesis will consist of a public presentation by the candidate and an invitation for questions, followed by an in-camera session involving the candidate, Thesis Committee, Program Co-ordinator, and Dean of Graduate Studies and Research.

8. Fees and Financial Aid

A Graduate Fellowship (value up to \$5,000) and teaching assistantships (up to \$1,500) are available to eligible students. Students are encouraged to seek support under the NSERC Postgraduate Industrial Scholarship scheme (contact Dean of Graduate Studies and Research). Faculty supervisors, in the absence of an NSERC PGSA or NSERC IPS or financial support from other external sources, will contribute to the support of accepted students from NSERC operating grants or research contract funds to ensure that students normally have a minimum support from all sources of \$14,000 for co-op option per annum for two years (co-op partners will

normally pay students during co-op work term) and \$15,000 for non co-op option per annum for two years. Refer to Section 6 of this *Academic Calendar* for other available University Awards.

The fees for courses, co-op work terms, thesis and thesis continuations are delineated annually by Financial Services and are found in the Registration Book.

9. Schedule of Activities for a Typical Student:

Students will undertake course work in the first and second semester of Year 1. Students in the co-op option will begin their first placement in May-August of Year 1 and either September-December or January-April of Year 2. The University will make every effort to locate work term positions for co-op students in academically-related areas of employment, but cannot guarantee placements.

10. Courses in Masters of Science in Applied Science

Department of Biology

BIO 602.1(.2)	Population genetics
BIO 611.1(.2)	Parasitology
BIO 614.1(.2)	Environmental Microbiology
BIO 618.1(.2)	Plant Physiology
BIO 619.1(.2)	Molecular Biology
BIO 650.1(.2)	Diversity of Forest Ecosystems
BIO 690.1(.2)	Directed Study

Department of Chemistry

CHE 611.0	Selected Topics in Physical Chemistry
CHE 612.1(.2)	Quantum Chemistry
CHE 613.1(.2)	Physical Chemistry
CHE 614.1(.2)	Symmetry and Chemical Applications of Group Theory
CHE 621.0	Selected Topics in Inorganic Chemistry
CHE 622.1(.2)	Advanced Topics in Inorganic Chemistry
CHE 631.0	Selected Topics in Analytical Chemistry
CHE 632.1(.2)	Instrumental Analysis I
CHE 633.1(.2)	Instrumental Analysis II
CHE 641.0	Selected Topics in Organic Chemistry
CHE 643.1(.2)	Organic Reaction Mechanisms
CHE 644.1(.2)	Synthesis in Organic Chemistry
CHE 645.1(.2)	Organic Spectroscopy
CHE 651.1(.2)	Biochemistry
CHE 652.1(.2)	Biochemistry: Metabolism
CHE 653.0	Selected Topics in Biochemistry

Environmental Studies Programme

ENV 630.1(.2)	Directed Study
ENV 650.1(.2)	Natural Resource Management
ENV 660.1(.2)	Methods of Environmental and Natural Resource Analysis

Department of Finance & Management Science

MSC 603.1(.2)	Statistical Applications in Management Science I
MSC 615.1(.2)	Strategic Design and Improvement of Operations
MSC 618.1(.2)	Total Quality Management
CIS 624.1(.2)	Database Systems
CIS SC 636.1(.2)	Decision Support Systems
MSC 690.1(.2)	Seminar in Management Science
MSC 692.1(.2)	Directed Study

Department of Geography

GPY 613.1(.2)	Coastal Geomorphology
GPY 614.1(.2)	Coastal Zone Planning
GPY 615.1(.2)	Directed Studies
GPY 623.1(.2)	Glacial Geomorphology
GPY 624.1(.2)	Directed Studies in Marine Geography
GPY 633.1(.2)	Fluvial Geomorphology
GPY 636.1(.2)	Advanced Remote Sensing
GPY 643.1(.2)	Natural Hazards
GPY 686.1(.2)	Concepts in Geographical Information Systems (GIS)
GPY 696.1(.2)	Applications in Geographical Information Systems

Department of Geology

GEO 630.1(.2)	Directed Study in Geology
GEO 641.1(.2)	Mineral Resources

GEO 642.1(.2)	Mineral Deposits
GEO 654.1(.2)	Applied Geochemistry
GEO 666.1(.2)	Petroleum Geology

Department of Mathematics & Computing Science

MAT 690.1(.2)	Directed Study in Mathematics
CSC 623.1(.2)	Cryptography
CSC 634.1(.2)	Programming Language Translation
CSC 651.1(.2)	Theory of Computation
CSC 652.1(.2)	Algorithm Analysis
CSC 661.1(.2)	Database Systems
CSC 663.1(.2)	Numerical Software
CSC 671.1(.2)	Computer Graphics
CSC 674.1(.2)	Information Retrieval
CSC 677.1(.2)	Intelligent Data Mining
CSC 682.1(.2)	Artificial Intelligence
CSC 676.1(.2)	Computer Vision and Image Processing
CSC 691.1(.2) to 699.1(.2)	Special Topics in Computing Science

Graduate Programs: Education

Acting Dean, Professor	Dr. Esther E. Enns
Associate Professor	Dr. Bernard Davis

A Master of Education degree in the Teaching of English as a Second or Foreign Language is offered by Mount Saint Vincent University in cooperation with Saint Mary's. The courses in this program taught at Saint Mary's provide an introduction to the principles and practices of second or foreign language teaching and are suitable for inclusion in Integrated Programs for the professional development of teachers dealing with students living in more than one language. These courses are described in Section 5 of this *Academic Calendar*.

Saint Mary's offers two post-degree Certificate Programs for the professional development of teachers which have been approved for the upgrading of Nova Scotia Teacher's Certificates.

The Certificate in the Mathematical Sciences for Education is described under Mathematics and Computing Science in Section 5 of this *Academic Calendar*.

The Certificate in Linguistics is described under Linguistics in Section 5 of this *Academic Calendar*.

**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 at extension centres, executive and professional development programs. As well, in cooperation with the Frank H. Sobey Faculty of Commerce and the Department of Psychology, the Division coordinates the Certificate in Human Resource Management. The main office of the Division of Continuing Education is located on campus at 883 Robie Street, the white house directly south of the McNally Building. The Division also maintains an extension office and seminar rooms at the World Trade Centre, 8th Floor, 1800 Argyle Street and also offers programs on the 4th floor of The Sobey Building on campus.

Information Session - Mature Students

The staff of the Division of Continuing Education hold regular information sessions both on and off campus on program availability and application procedures for mature and non-degree students. To receive an information package and reserve a place at the next information session, call the Division of Continuing Education, 902-420-5490. For details of the mature and non-degree admissions procedures, consult Section 2 of this *Academic Calendar*.

Part-time Degree Programs

It is possible to complete the Bachelor of Arts, the Bachelor of Commerce and the Certificate in Human Resource Management programs entirely through part-time, evening study. As well, it is possible to begin the Bachelor of Science program 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 and is also posted on the Continuing Education website: www.smu.ca/conted/summer. A brochure detailing all of the summer session course offerings is published each year in early March.

Extension Centre Courses

Each year Saint Mary's University offers degree credit courses in a number of off-campus extension centres. Courses are offered in a variety of settings: schools, libraries, office buildings, and cultural centres and in many locations: Sackville, Dartmouth and downtown Halifax. Several credit courses are now available over the internet using the world wide web. 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 courses being offered during the academic year and the summer sessions contact the Division of Continuing Education or check our website: www.smu.ca/conted/ext/.

Executive and Professional Development

Drawing upon the academic resources of the University, the Executive and Professional Development Programs are designed to promote and improve management and financial skills that benefit both individual career development and organizational and business success. Programs include a diverse selection of seminars and courses that promote innovative management practices and contribute to successful operations. Programs include certificates in business communications, negotiation and conflict resolution, leadership, marketing, international business and leading innovation. Diploma programs are described further on in this *Calendar* entry. In partnership with the Division of Executive Development, York University, Saint Mary's offers advanced management seminars and a Masters Certificate in Project Management. For further information on our programs consult the Executive and Professional Education web site: www.smu.ca/conted/epd.

Certificates in Human Resource Management

Saint Mary's provides a series of courses to fulfil the requirements for a certificate program in human resource management with either a Management option or a Management and Psychology option. These Certificate programs are beneficial to both individuals currently working in the human resources departments and those who wish to prepare themselves for a career in the field.

To obtain a Certificate, a student must complete either the compulsory core management courses (3.5 credits) and elective courses (4.5) for a total of eight (8.0) credits (in which case the designator is HRM) or the compulsory management and psychology courses (4.0 credits) and elective courses (4.0) (delineated in two categories -Psychology and Business, as found in Section 5 of this *Calendar*, Department of Psychology) for a total of eight (8.0) credits (in which case the designator is HRP). It is possible to complete the certificate program along with the Bachelor of Commerce, Bachelor of Arts, or Bachelor of Science degree programs. It is also possible to receive the Certificate in Human Resource Management by itself.

Compulsory Core Courses - Management Option (3.5 credits)

MGT 281.1(.2)	Introduction to Business Management
MGT 383.1(.2)	Micro Organizational Behavior
MGT 384.1(.2)	Macro Organizational Behavior
MGT 385.1(.2)	Human Resource Management
MGT 386.1(.2)	Industrial Relations
MGT 485.1(.2)	Wage & Salary Administration
MGT 486.1(.2)	Personnel Staffing, Training and Development

Elective Courses - Management Option (4.5 credits)

ACC 241.1(.2)	Introductory Financial Accounting
ACC 242.1(.2)	Introductory Managerial Accounting
CML 201.1(.2)	Legal Aspects of Business - Part I
CIS 225.1(.2)	Introduction to Computer Applications
COM 293.1(.2)	Communications
COM 394.1(.2)	Oral Communications and Presentation Techniques
COM 475.1(.2)	Advanced Managerial Communications
ECO 201.1(.2)	Principles of Economics (Micro)
ECO 202.1(.2)	Principles of Economics (Macro)
ECO 340.1(.2)	Human Resource Economics
ECO 341.1(.2)	Labor Economics
MGT 388.1(.2)	Business and Society
MGT 392.1(.2)	Occupational Health and Safety

MGT 481.1(.2)	Organization Theory: Structure Process, Analysis & Design
MGT 483.1(.2)	Interpersonal Behavior I
MGT 488.1(.2)	International Business Management
MGT 493.1(.2)	Business-Government Relations in Canada
MGT 496.1(.2)	Collective Bargaining
MGT 497.1(.2)	Issues in Industrial Relations
MGT 499.1(.2)	Senior Management Perspectives
PSY 309.1(.2)	Human Factors and Performance
PSY 327.1(.2)	Industrial/Organizational Psychology
*PSY 399.1(.2)	Special Topics in Psychology
PSY 417.1(.2)	Interpersonal Relationships
PSY 425.1(.2)	Psychology of Organizational Development
PSY 426.1(.2)	Personnel Training & Development
PSY 427.1(.2)	Organizational Psychology
PSY 428.1(.2)	Personnel Psychology
PSY 441.1(.2)	Psychological Measurement
PSY 446.1(.2)	Seminar in Psychology

***Note:** Course must be directly related to the field of Human Resource Management.

Compulsory Core Courses - Management & Psychology Option (4.0 credits)

MGT 281.1(.2)	Introduction to Business Management
PSY 327.1(.2)	Industrial/Organizational Psychology
MGT 385.1(.2)	Human Resource Management
MGT 386.1(.2)	Industrial Relations
PSY 426.1(.2)	Personnel Training and Development
PSY 427.1(.2)	Organizational Psychology
PSY 428.1(.2)	Personnel Psychology
MGT 485.1(.2)	Wage & Salary Administration

Elective Courses - Management and Psychology Option (4.0 credits: 2.0 from Psychology Electives and 2.0 from Business Electives)

Psychology Electives (2.0 credits)

PSY 309.1(.2)	Human Factors and Performance
PSY 340.1(.2)	Introduction to Research Methods in Psychology
*PSY 399.1(.2)	Special Topics in Psychology
PSY 417.1(.2)	Interpersonal Relationships
PSY 425.1(.2)	Psychology of Organizational Development
PSY 432.1(.2)	Attitudes and Persuasion
PSY 441.1(.2)	Psychological Measurement
*PSY 445.1(.2)	Directed Research in Psychology
PSY 446.1(.2)	Seminar in Psychology HRM Topics

***Note:** Course must be directly related to the field of Human Resource Management.

Business Electives (2.0 credits)

ACC 241.1(.2)	Introductory Financial Accounting
ACC 242.1(.2)	Introductory Managerial Accounting
CML 201.1(.2)	Legal Aspects of Business - Part I
CIS 225.1(.2)	Introduction to Computer Applications
COM 293.1(.2)	Communications
COM 394.1(.2)	Oral Communications and Presentation Techniques
COM 475.1(.2)	Advanced Managerial Communications
ECO 201.1(.2)	Principles of Economics (Micro)
ECO 202.1(.2)	Principles of Economics (Macro)
ECO 340.1(.2)	Human Resource Economics
ECO 341.1(.2)	Labour Economics
PSY 340.1(.2)	Introduction to Research Methods in Psychology

MGT 388.1(.2)	Business and Society
MGT 391.1(.2)	Women in Management
MGT 392.1(.2)	Occupational Health and Safety
MGT 481.1(.2)	Organization Theory: Structure Process Analysis & Design
MGT 484.1(.2)	Interpersonal Behavior II
MGT 488.1(.2)	International Business Management
MGT 493.1(.2)	Business-Government Relations in Canada
MGT 496.1(.2)	Collective Bargaining
MGT 497.1(.2)	Issues in Industrial Relations
MGT 499.1(.2)	Senior Management Perspectives

Note: Students in the Bachelor of Arts degree program who are following this Psychology option are advised to check very carefully to ensure that they have sufficient upper-level courses as required for their degree program.

Academic Requirements

All academic regulations governing students in degree and diploma courses also apply to students enrolled in this Certificate Program.

Requirements for Graduation

A minimum cumulative quality point average of at least 2.00 in the Human Resource Management Certificate Program courses is required for graduation with the certificate.

Advanced Standing

Students with courses from previous post-secondary study will be assessed by the Dean of Commerce (or designate) for the Management Option and the Chairperson of the Department for the Psychology Option according to the advanced standing procedures of the university (Academic Regulation 20). To be awarded the Certificate at least two credits (2.0) of the compulsory courses and two credits (2.0) from the electives must be completed at Saint Mary's University while registered in the Human Resource Management certificate program.

Credit will not automatically be recognized for university courses completed more than ten (10) years prior to the students return to university study.

Sales Certificate Program

In cooperation with the Canadian Professional Sales Association (CPSA), the Division of Continuing Education is offering CPSA Sales Institute courses and the national sales certification exam at Saint Mary's campus. CPSA Sales Institute courses are part of the national sales certification program, but are also open to anyone interested in the sales field. The Division of Continuing Education offers Skills for Sales Success and Sales Management.

Payroll Courses

In partnership with the Canadian Payroll Association, Saint Mary's University offers the Introduction to Payroll course. This is the first level of the Payroll Management Program. For more information, contact the Division of Continuing Education at 902-420-5492 or the Canadian Payroll Association at 1-800-387-4693.

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

Canadian Institute of Management
 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 directly.

Diploma in Marketing and International Business

This 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 at the World Trade Centre, 902-420-5638 or check our website: www.smu.ca/conted/epd.

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, 902-420-5638 or check out our website: www.smu.ca/conted/epd.

Diploma in Management

This program provides experienced managers with the skills and knowledge necessary to ensure that their business goals and objectives are met and exceeded. The program consists of three five-day modules over a six month period covering such topics as finance, marketing, human resources, leadership and strategic management. To help apply the concepts and techniques featured in the program, the program includes ten hours of individual coaching by course instructors. For further information, please contact Saint Mary's at the World Trade Centre, 902-420-5638 or check out our website: www.smu.ca/conted/epd.

University Preparatory Courses

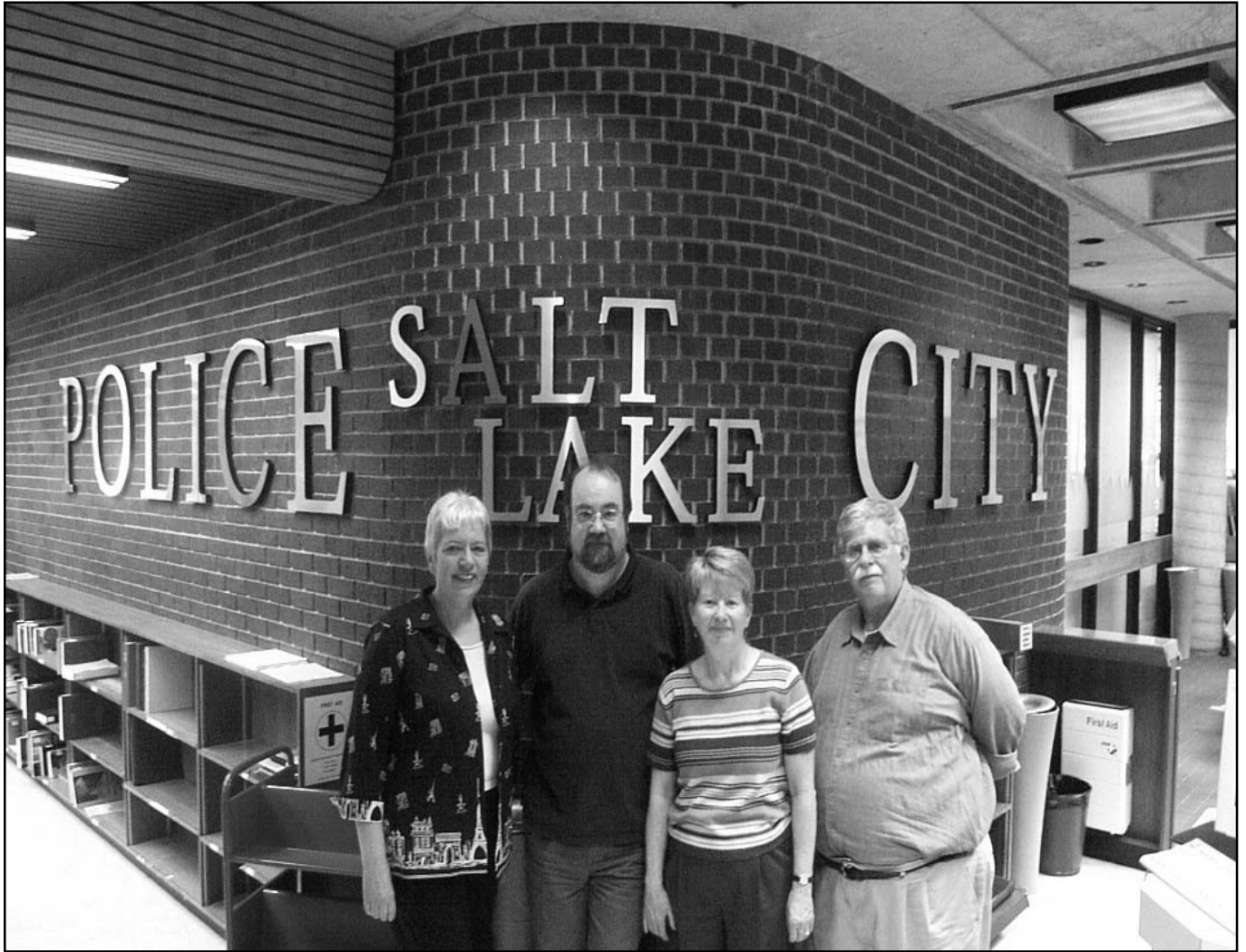
The Division of Continuing Education offers upgrading courses in writing skills and mathematics. Preparation and review courses are offered for both the General Management Admissions Test (GMAT) and the Law School Admissions Test (LSAT). For a descriptive course brochure please contact the Division of Continuing Education at 902-420-5492 or check out our website: www.smu.ca/conted/uprep.

Elder Learners

Each fall and winter, the Division of Continuing Education offers a monthly lecture series for Elder Learners, an organization that promotes active learning for seniors. As well, general interest courses and study tours are offered. For more information call 420-5492 or check the web site: www.smu.ca/conted/el.

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; or www.smu.ca.



**Saint Mary's University was the venue for the filming of "The Elizabeth Smart Story".
The University Librarian, Madeleine Lefebvre, left, and three of her staff are pictured on the set.**

**Description
Of Courses**

Section

5

To maximize your understanding of the material in this section of the *Academic Calendar* please read carefully.

- 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 in assessing written work. Students who are deficient in this area are therefore strongly advised to take immediate steps to remedy that deficiency.
- This section includes all courses approved for offering by academic units. Some of the courses will **NOT** be offered in 2004-2005. Students are therefore advised to consult the academic timetable for those courses which will be taught in the 2004-2005 academic year and the time(s) and location(s) at which they will be offered.
- Courses are normally offered for three hours per week. Any variations to this are noted below the relevant course description.
- Students' attention is directed to the fact that those courses carrying double numbers, i.e., HIS 517.0 (617.0), will require additional work and a higher level of academic performance for students registering for the higher number. If students are unsure about the requirements, they should check with the faculty member offering the course.
- In some academic units, some courses are listed only with a number and title but no description. These are approved courses which are not being taught on a regular basis. Full course descriptions for these courses can be found in previous years' *Academic Calendars* on the web at <http://www.smu.ca>.
- During the past few academic years, a number of full courses (i.e., those designated .0) were divided into two half credits (designated as .1 or .2 depending on the academic term/session in which they are offered). Students, therefore, are urged to be **EXTREMELY CAREFUL** that they do not register for the second time for a course for which they have already received a credit, albeit of a different credit value. (Reference: Academic Regulation 17: Retaking a Course.)
- Students who lack the prerequisite(s) stipulation for a specific course have the right to approach the instructor of that course and/or the chairperson of the academic unit in which it is offered to seek special permission to register for the course.

Accounting (ACC)

Chairperson, Professor	T. Cheng
Professors	R. Chesley, B. Gorman, N. Young
Associate Professors	B. Anderson, D. Bateman, P. Secord
Assistant Professors	G. Ansong, J. Power, X. Song
Lecturers	K. Lightstone, P. Robinson
Adjunct Professor	K. Mader
Professor Emeritus	F. Dougherty

The Department of Accounting offers a program for accounting majors that will prepare students for careers in professional accounting, industry and government. The Department also offers courses in financial and managerial accounting and information systems for all Commerce students.

Joint MBA-CMA Program

Saint Mary's University has an agreement with CMA Nova Scotia that will permit students to earn the Certified Management Accountant (CMA) designation and the Master of Business Administration degree concurrently. This program, unique in Canada, is designed for part-time students and normally requires 28 months to complete. For complete details, see Section 3 of this *Calendar*.

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, the Institute of Internal Auditors, and the Certified General Accountants Association. 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 Department also has an agreement with The Association of Chartered Accountants (ACCA) by which all graduates of Saint Mary's Bachelor of Commerce degree program may gain exemption from virtually all of the Foundation and Certification stages of the ACCA program.

The Accounting Major: In addition to meeting the general requirements for a Bachelor of Commerce degree, students must also complete the requirements for the major.

Year 3

ACC 323.1(.2) Management Information Systems
 ACC 333.1(.2) Cost Management: Measurement Systems
 ACC 334.1(.2) Cost Management: Systems Evaluation
 ACC 341.1(.2) Intermediate Financial Accounting
 ACC 342.1(.2) Intermediate Financial Accounting
 ACC 345.1(.2) Financial Accounting Theory
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 One (1.0) credit free elective

Year 4

ACC 455.1(.2) Financial Accounting Seminar, or
 ACC 470.1(.2) Management Accounting Seminar
 One (1.0) Accounting elective - see note (i) below
 MGT 489.1(.2) Strategic Management
 Two (2.0) credits non-Commerce electives
 One (1.0) credit free elective at 200-level or above (1.0) - see note (ii) below

Notes: (i) MSC/CIS 324.1(.2), MSC/CIS 326.1(.2), or MSC/CIS 435.1(.2) as well as ACC 357.1(.2) or any 400 level course in Accounting not used to fulfil other requirements may be used to satisfy this requirement.

(ii) CML 202.1(.2) is normally required by professional accounting associations in order to receive an exemption for commercial law. Check with the Chairperson for the most recent requirements.

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 Financial Accounting

Prerequisite: Two and one half (2.5) credits, including MGT 281.1(.2) or appropriate work experience determined in advance by the Chairperson of the Department.

This course is concerned with a study of basic accounting concepts and principles, their application to business transactions and financial statements, and an understanding of the uses and limitations of the balance sheet, income statement, and statements of cash flow.

242.1(.2) Introductory Managerial Accounting

Prerequisite: ACC 241.1(.2); ECO 201.1(.2); and MSC 205.1(.2).

This course serves as an introduction to managerial uses of accounting data in the production of goods and the provision of services. Accounting concepts and principles will be studied from the perspective of managerial decision-making.

323.1(.2) Management Information Systems

Prerequisite: ACC 242.1(.2).

The study of computer-based data processing and information systems, management problems of computers in business such as organization, control and feasibility.

332.1(.2) Planning and Control

Prerequisite: ACC 242.1(.2) and MSC/CIS 225.1(.2).

This course for non-accounting majors covers both the concepts and techniques of planning and control. Topics may include financial decision making, activity management, performance measurement and analysis, cost allocation, and management control systems. A major focus is the enhancement of teamwork, analytical, and other decision-making skills.

333.1(.2) Cost Management: Measurement Systems

Prerequisite: ACC 242.1(.2) and MSC 207.1(.2).

The course focuses on topics related to the identification, classification, and evaluation of costs and various cost measurement systems (e.g., job order costing, process costing, activity-based costing, and cost estimation). This course is designed for majors in accounting.

Note: Students cannot receive credit for both ACC 332.1(.2) and 333.1(.2).

334.1(.2) Cost Management: Systems Evaluation

Prerequisite: ACC 333.1(.2); or ACC 332.1(.2) and written permission of the Chairperson of the Department of Accounting.

The course focuses on topics related to the evaluation of performance and business processes (e.g. cost variance analysis, revenue variance analysis, just-in-time inventory, computer-integrated manufacturing).

341.1.(2) Intermediate Financial Accounting, I

Prerequisite: ACC 242.1.(2) and MSC 225.1.(2).

This course, together with ACC 342.1.(2) 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. and lab 75 min. a week.

342.1.(2) Intermediate Financial Accounting, II

Prerequisite: ACC 341.1.(2).

This course together with ACC 341.1.(2) provides a comprehensive study of financial accounting and financial reporting.

Classes 3 hrs. and lab 75 min. a week.

343.1.(2) Financial Accounting Analysis

Prerequisite: ACC 242.1.(2)

Financial Accounting Analysis is focused on the form and content of financial information disclosed by organizations to external parties together with the development of skills needed to analyze the information. The primary audience for this course is non accounting majors in their third or fourth year.

Note: Students cannot receive credit for this course if they already have credit for ACC 341.1.(2) and 342.1.(2).

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).

357.1.(2) International Accounting

Prerequisite: ACC 242.1.(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. Top.rrency 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) or 333.1.(2); and 341.1.(2) or 343.1.(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. and lab 75 minutes a week.

424.1.(2) Small Business Accounting Information Systems

Prerequisite: ACC 323.1.(2).

This course examines issues relating to the role, selection, design, and implementation of commercially-developed accounting information systems in small business. The course provides students with an opportunity to gain practical experience by utilizing a decision support system to assist in the software selection process for a local small business. Students will also learn to use at least one commercially-developed accounting software package.

425.1.(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 cost-benefit analysis techniques are also discussed. These concepts and skills are applied in a major practical case project.

429.1.(2) Seminar in Management Information Systems

Prerequisite: ACC 323.1.(2) and one of ACC 423.1.(2), ACC 425.1.(2), or MSC/CIS 425.1.(2).

This capstone MIS course addresses the rising need of managers to recognize the strategic importance of information systems. The concept of information as a corporate resource is emphasized. Techniques for planning, developing, controlling and evaluating an organization's "information architecture" are presented. Special emphasis is placed in reviewing how information technology (IT) can be used as a management tool to increase organizational competitiveness (strategic information systems planning). Alternative IT development and implementation strategies are evaluated. Corporate investment in existing and emerging information technologies (electronic commerce, executive support systems, expert systems, distributed data processing, office automation, etc.) is evaluated in terms of its ability to produce real efficiency, effectiveness and transformation gains. This course will make extensive use of case studies.

443.1.(2) Advanced Financial Accounting - Corporate Accounting

Prerequisite: ACC 342.1.(2).

This course covers long term investments in equity securities and international operations.

Classes 3 hrs. and lab 75 min. a week.

444.1.(2) Advanced Financial Accounting - Special Topics

Prerequisite: ACC 342.1.(2) and 345.1.(2).

This course includes consideration of accounting standards of disclosure, accounting measurement and alternatives, entities in financial difficulties, financial instruments, and not-for-profit and public sector accounting issues.

445.1.(2) Financial Statement Analysis

Prerequisite: ACC 341.1.(2) or 343.1.(2); and 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.

449.1(2) Management Control Systems

Prerequisite: ACC 332.1(.2) or 333.1(.2); MGT 383.1(.2) and MGT 384.1(.2).

A study of the management control system which examines problems of effective and efficient control from the perspective of the total system: expense centers, profit centers, investment centers, strategic planning, budgeting, performance appraisal. This course is recommended for non-accounting majors seeking further study in accounting.

450.1(2) Auditing

Prerequisite: ACC 342.1(.2).

A study of 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 topics.

453.1(2) Taxation - Part I

Prerequisite: ACC 342.1(.2) or FIN 361.1(.2).

This course is the first of a two course sequence which introduces the student to the fundamental principles of taxation (the theory), the compliance aspects of the law (the practice), and the rationale for specific tax provisions (the policy). The course also examines the effect of taxation law on the investment decisions of individuals and corporations. Both personal and corporation income taxation are covered.

454.1(2) Taxation - Part II

Prerequisite: ACC 453.1(.2).

This course examines in greater depth the topics covered in ACC 453.1(.2), and introduces the student to the concept and principles of commodity taxation. Course assignments concentrate on the effect of tax law on personal and managerial decision making.

455.1(2) Financial Accounting Seminar

Prerequisite: ACC 342.1(.2) and 345.1(.2).

An intensive study of the problems of income determination, asset valuation and liability and equity measurements; a study of the conventional accounting model and the accounting theories that are proposed as a framework for the resolution of the problems in the conventional model.

460.1(2) Internal/Operational Auditing

Prerequisite: ACC 332.1(.2) or 333.1(.2); ACC 341.1(.2) or 343.1(.2).

A study of the concepts and theory of internal/operational auditing including the internal/operational audit environment; the structure of the auditing profession; the duties, responsibilities and procedures of auditors; and the relationship between the internal/operational auditing function and the external audit.

470.1(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.

475.1(2) Business Consultancy

Prerequisite: ACC 332.1(.2) or 333.1(.2); ACC 341.1(.2) or 343.1(.2), and permission of Chairperson of the Department.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information see www.stmarys.ca/smubdc.

Internship. 1 semester.

480.1(2) Accounting and Small Business

Prerequisite: ACC 323.1(.2); ACC 332.1(.2) or 333.1(.2); and FIN 360.1(.2).

This course addresses 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 other issues of current concern.

490.1(2) Selected Topics in Accounting

Prerequisite: ACC 332.1(.2) or 333.1(.2); ACC 341.1(.2) or 343.1(.2); and permission of chairperson.

This course deals with selected topics in accounting. The topics to be covered will vary depending on the interests of the instructor and are subject to departmental approval.

492.1(2) Directed Study

Prerequisite: permission of The Chairperson of the Department and instructor.

This course provides an opportunity to study specific areas of accounting, auditing, taxation or information systems. 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.

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.

548.1(.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. Product costing, budgeting, profit-planning and performance measurement make up the major portion of the course content.

624.1(.2) Small Business Accounting Information Systems

Prerequisite: completion of all 500-level MBA courses or permission of the MBA Director.

This course examines issues relating to the role, selection, design, and implementation of commercially-developed accounting information systems in small businesses. The course provides students with an opportunity to gain practical experience by utilizing a decision support system to assist in the software selection process for a local small business. Students will also learn to use at least one commercially-developed accounting software package.

626.1(.2) Management Information Systems: Strategy and Practice

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course addresses the rising need of managers to recognize the strategic importance of information systems and to be able to create new work environments which allow their organizations to leverage knowledge globally, organize for complexity, work electronically, and handle continuous and discontinuous change. The concept of information as a corporate resource which must be effectively planned, developed, managed and controlled is emphasized.

641.1(.2) Financial Reporting and Statement Analysis

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course examines financial statements from the perspective of both preparers and users of financial information. Commencing with analytical models of information production, the course focuses on various mechanisms of information extraction. Techniques such as ratio analysis, signal extraction, forecasting are used to establish functional relations between the accrual process and the economic position of a firm. Consequently, the course provides a framework for using accounting information to evaluate a firm.

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) Integrative Managerial Accounting I

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

Beginning with organizational goals and objectives, and involving strategy, policy, and implementation issues, this course examines the development

of management planning and control systems in the modern organization. The focus will be on techniques and processes that lead to improved management decision making. Some of the topics discussed may include activity-based management, target costing, value chains, life cycle costing, principal and agency relationships, and customer value analysis. Integrative problem solving and case-analysis will be emphasized both at a group and individual level.

652.1(.2) Integrative Managerial Accounting II

Prerequisite: ACC 650.1(.2).

This is a continuation of Integrative Managerial Accounting I. Particular emphasis is placed on the study of change management processes and techniques, and performance analysis and evaluation. Some of the topics discussed may include economic value added, balanced scorecard, total quality management, corporate reengineering, and strategic brand valuation. Integrative problem solving and case-analyses will be emphasized both at a group and individual level.

653.1(.2) Taxation

Prerequisite: completion of all required 500-level MBA courses or permission of instructor.

An introductory study of federal corporate and personal taxation, with particular emphasis on the managerial decision making and investment implications of taxation. The course will also introduce students to the basic federal sales tax system.

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 the Chairperson of the 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: ACC 654.1(.2) and permission of the Chairperson of the 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 Chairperson of the 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 the Chairperson of the 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 the Chairperson of the 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 practices 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 the MBA Director.

The tax implications for various complex business decisions such as mergers, capital structuring, investments, and business valuations will be investigated. Recent income tax legislation will also be considered as part of the investigation conducted.

668.1(2) Advanced Management Information Systems (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.

680.1(2) Environmental Accounting

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course is designed to help students understand how to monitor, control, measure, and report the environmental impact of business and public sector organizations. The course will include an overview of sustainable development from an accounting perspective, external reporting of environmental costs and obligations, internal planning, budgeting and control of costs, and an introduction to environmental auditing. The course is oriented toward integration of the concepts of sustainable resource management into the integral planning and external reporting of the organization, and will include case studies and projects which endeavour to integrate the field of accounting with others related to the interaction of the environment with the economy. To the extent possible, applications and cases, as well as the skills of professionals not members of the Department of Accounting, will be used to strengthen this integration.

690.1(2) Seminar in Accounting

Prerequisite: ACC 652.1(.2) or permission of MBA Director.

The course deals with selected topics in the accounting area. Current development in accounting and other related areas will be studied.

692.1(2) Directed Study

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director 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.

699.0 Research Project

Corequisite: MBA 697.1(.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

Chairperson, Professor	S. Davis
Professors	P. Erickson, H. McGee
Associate Professor	S. Walter
Lecturer	S. Tulloch
Adjunct Professors	M. Daveluy, J. Dayle, C. Fletcher, M. Zelenietz

Departmental Policy

1. To obtain a minor in Anthropology, students are required to have completed at least four (4.0) credits. One (1.0) credit must be selected from among ANT 202.1(.2), 271.1(.2), 280.1(.2), or 290.1(.2). Two of the remaining credits must be from courses at the 300 level or above.

2. To complete a concentration in Anthropology, the requirement for the 15.0 credit B.A., students are required to have completed at least eight (8.0) half credit courses. These must include the core program of ANT 202.1(.2), 271.1(.2), 280.1(.2) and 290.1(.2). The remaining four (4.0) half credits must be from courses at the 300 level or above.

3. To obtain a major in Anthropology, a student is required to have completed at least six (6.0) credits, i.e., 12 half credit courses in anthropology. These must include ANT 202.1(.2), 271.1(.2), 280.1(.2), and 290.1(.2). The remaining credits must be at the 300 level or above. The program of study for majors will be discussed with the student's departmental advisor who will be assigned at the time the major is declared.

4. To obtain an honors in Anthropology, a student must first be admitted to the honors program and then graduate from the honors program.

a. To be admitted to the program, a student must satisfy pertinent Faculty of Arts requirements and secure an approved statement of a thesis topic (obtain form from the departmental secretary).

b. To graduate from the program, a student must satisfy pertinent Faculty of Arts requirements and complete the equivalent of ten (10.0) credits (i.e., 20.0 half credit courses) in anthropology including the following obligatory core: ANT 202.1(.2), 271.1(.2), 280.1(.2), 290.1(.2), 451.1(.2) or 452.1(.2), 501.1(.2) and 502.1(.2). In addition, students must complete two (2.0) half credits at the 300 level or above in each of the four subfields; archaeology, biological, socio-cultural and linguistics and one (1.0) half credit in an upper-level methods course.

c. To graduate from the program, students must also receive minimum grades of B (3.0) in ANT 501.1(.2) and 502.1(.2).

5. The Department offers a prize for excellence in anthropological writing to major or honors students. The prize is named in honor of Prince John Loewenstein, the founder of the Department, and consists of a cash award and certificate of merit. Details for submission of essays may be obtained from the Chairperson of the Department.

Note: The prerequisite for a given course may have a prerequisite itself. It is important to keep this in mind when planning your academic career.

202.1(.2) Introduction to Ethnology and Social Anthropology

An introduction to the comparative study of the cultures and social systems of people from diverse cultures. Economics, politics, kinship, family, religion, and the like will be examined as will the expressive aspects of culture such as the arts, myth, and ritual.

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.

280.1(.2) Introduction to Biological Anthropology

A survey of human biological evolution. The principal topics are evolutionary theory, human genetics, the nature of race, living primates, and the fossil record of humanity.

290.1(.2) Introduction to Human Communication

This course provides students with some of the basic concepts for understanding language as used by humans. Topics to be considered include, but are not limited to, the nature of language and communication, the organization of communicative behavior, and linguistic diversity. The emergence of ethnolinguistics as a subdiscipline of anthropology is also discussed.

302.1(.2) Social Organization

Prerequisite: ANT 202.1(.2) or SOC 210.1(.2).

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.

304.1(.2) Egalitarian Societies

305.1(.2) Chiefdoms

Prerequisite: ANT 202.1(.2).

Non-egalitarian societies (societies emphasizing inherited rank) are surveyed in this course. Consideration is given to explanations of cultural diversity and to theories of socio-cultural evolution.

306.1(.2) Foraging Adaptations

Prerequisite: ANT 202.1(.2).

Humans have spent more of the past as foragers than they have pursuing other subsistence strategies, and foraging has supported a wide range of cultural traditions. This course provides a survey of selected foraging societies that have been described by ethnologists. Both egalitarian and non-egalitarian foragers are discussed, and examples are drawn from a wide range of environments and regions. Consideration is given to theories aimed at accounting for recurring cultural patterns as well as the diversity exhibited by foragers.

309.1(.2) Peasant Society and Culture

311.1(.2) Ethnology: Melanesia

316.1(.2) Native Peoples of Canada

Prerequisite: ANT 202.1(.2) or one (1.0) credit in HIS or a social science.

This course provides 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 also discussed.

317.1(.2) Native Peoples of the United States and Mexico

323.1.(2) Traditional Culture of Micmac and Maliseet Peoples

Prerequisite: ANT 202.1.(2).

An examination of the “traditional” culture of the Micmac and Maliseet peoples with emphasis upon the relationship between mythology and social organization.

324.1.(2) Contemporary Culture of Micmac and Maliseet Peoples**326.1.(2) Ethnology: East Asia**

Prerequisite: ANT 202.1.(2) or ASN 300.1.(2).

A survey of the peoples of East Asia. Special attention is given to the socio-cultural integration of community and the state.

327.1.(2) Ethnology: Japan

Prerequisite: ANT 202.1.(2) or ASN 300.1.(2).

An examination of the culture and society of contemporary Japan. Emphasis is placed upon the topics of world view, urban-rural dichotomies, and gender issues.

329.1.(2) The Arctic Culture Area**338.1.(2) Medicine as Culture**

Prerequisite: one (1.0) social science credit.

This course examines medicine as culture. Because conceptions of health and illness differ around the world, questions of health and illness are complex issues. Light is shed on some of these complexities by exploring cross-cultural explanations of birth, disease, illness, and death; by tracing the rise of Western medicine; by investigating sociocultural biases in treatment practices; by acquainting students with theoretical perspectives on health and illness, and; by examining the body in medicine and culture.

339.1.(2) Medicine in Culture

Prerequisite: one (1.0) social science credit.

This course builds on ANT 338.1.(2) by investigating the organization and structures of medical systems, their relationships, their patients and healers, their technologies and their effects on and the responses of groups and individuals in cross-cultural contexts.

**341.1.(2) Cross-listed as IRS 340.1.(2) and REL 367.1.(2)
The Early Christian Church in Britain and Ireland****351.1.(2), 352.1.(2), 353.1.(2), 354.1.(2)****Directed Independent Study in Anthropology**

Prerequisite: at least two (2.0) credits in ANT.

Directed independent study on a reading or research program agreed to by the student and the instructor. The student must obtain the instructor's and chairperson's written approval of the proposed study plan prior to registering for the course. A student is limited to two (2.0) credits of Directed Independent Study in Anthropology in fulfilling departmental requirements for a major or honours degree.

**365.1.(2) Myth: Anthropological Approaches
[REL 365.1.(2)/465.1.(2)]**

Prerequisite: ANT 202.1.(2), ANT 290.1.(2), REL 201.0 or REL 202.0.

The student is 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 is a concentration on the myth corpus of a single society.

**366.1.(2) Worldview: Anthropological Approaches
[REL 366.1.(2)/466.1.(2)]****371.1.(2) Prehistory of Canada**

Prerequisite: ANT 271.1.(2).

A survey of the development of prehistoric cultures in Canada. The course uses the archaeological record from the Arctic, sub-Arctic, far Northeast, Northern Plains and West Coast to examine cultural change.

373.1.(2) Fieldwork in Archaeology**374.1.(2) Archaeology Laboratory****375.1.(2) World Prehistory**

Prerequisite: ANT 271.1.(2) or one (1.0) credit in a social science.

This 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.

**379.1.(2) Cross-listed as IRS 379.1.(2) and GPY 379.1.(2) Irish
Material Culture****381.1.(2) Advanced Biological Anthropology 1**

Prerequisite: ANT 280.1.(2).

The course offers sophisticated examination of human biological evolution, principally the topics of evolutionary theory, human heredity, and race. Students conduct in-class investigations and assignments.

Note: It is recommended that students who complete ANT 381.1.(2) also complete ANT 382.1.(2) in the same academic year.

382.1.(2) Advanced Biological Anthropology 2

Prerequisite: ANT 381.1.(2).

The course offers sophisticated examination of human biological evolution, principally the topics of primatology, human skeletal analysis, and the fossil record of humanity. Students conduct in-class exercises and assignments.

391.1.(2) Linguistic Anthropology

[LIN 391.1.(2)]

Prerequisite: ANT 290.1.(2) or one half (0.5) credit in LIN.

The study of the relationships between linguistics and anthropology through the understanding of the nature of language. Concepts and methods used by anthropologists to analyse linguistic data. Training in the manipulation of linguistic tools in the analysis of languages other than English.

392.1.(2) Language, Culture and Society

[LIN 392.1.(2)]

Prerequisite: one half credit (0.5) in either ANT or LIN.

Survey of different approaches and concepts in linguistic anthropology (ethnoscience, ethnosemantics, ethnolinguistics). Exposure to main topics of interest in the field (the relationships between language, culture and thought, for example). Characteristics of an anthropological perspective on language(s).

**395.1(.2) Language Use and Issues in Northern Canada
[LIN 395.1(.2)]**

Prerequisite: one half credit (0.5) in either ANT or LIN.

The main focus of the course is Inuktitut, the language spoken by the Inuit. The linguistic situations in Nunavut and Nunavik (northern Quebec) are compared. Topics discussed include linguistic identity, language status, language maintenance and official languages of Canada. Although some exposure to Inuktitut is provided, this is not a language course.

396.1(.2) Language Use and Issues in Southern Canada

Prerequisite: ANT 290 or one half (0.5) credit in LIN.

This course examines the two official languages of Canada, English and French, as well as Aboriginal and heritage languages. It will take a descriptive approach at the languages in Canada and their current status, as well as a critical look at the respective place of these languages in our society. Issues related to multilingualism at an individual and societal level are also examined.

411.1(.2) Data Collection in Socio-cultural Anthropology**412.1(.2) Explanation in Socio-cultural Anthropology****451.1(.2) History of Anthropological Theory 1**

Prerequisite: ANT 202.1(.2), 271.1(.2), 280.1(.2), 290.1(.2) and one (1.0) additional credit in ANT.

A history of anthropological theory from antiquity through the 19th century emphasizing the cultural context of influential intellectual trends.

452.1(.2) History of Anthropological Theory 2

Prerequisite: ANT 202.1(.2), 271.1(.2), 280.1(.2), 290.1(.2) and one (1.0) additional credit in ANT.

A history of anthropological theory in the 20th century emphasizing American, British, and French intellectual traditions.

462.1(.2) Method and Theory in Historical Archaeology

Prerequisite: ANT 271.1(.2).

Concepts and methods of historical archaeology, survey techniques, data collection, and laboratory analysis. Suggested for students who intend to take fieldwork courses in archaeology.

463.1(.2) Method and Theory in Precontact Archaeology

Prerequisite: ANT 271.1(.2).

Concepts and methods of precontact archaeology, survey techniques, data collection, and laboratory analysis. These topics are examined with emphasis on the archaeology of First Nations People of North America.

464.1(.2) Advanced Fieldwork in Archaeology**465.1(.2) Advanced Archaeology Laboratory****466.1(.2) Researching Halifax Heritage**

Prerequisite: ANT 271.1(.2) and at least one (1.0) additional credit in ANT; ACS; or HIS above the 200 level.

In this course students learn how to conduct research on the archaeological potential and historical significance of sites and buildings within the Halifax Regional Municipality. A significant portion of the research will be conducted off-campus. Students will prepare and present reports on

the archaeological potential of a site and on the historical significance of a building.

Seminar 3 hours a week. 1 semester.

471.1(.2) Forensic Anthropology 1

Prerequisite: ANT 382.1(.2)

An introduction to forensic anthropology. The principal topic is the recovery and identification of human skeletal remains. The course Econsists almost entirely of laboratory work, so the number of students is restricted.

Note: It is recommended that students who complete ANT 471.1(.2) also complete ANT 472.1(.2).

Classes 1 hr. and lab 1 1/2 hours a week. 1 semester.

472.1(.2) Forensic Anthropology 2

Prerequisite: ANT 471.1(.2).

An introduction to forensic anthropology. The principal topic is human skeletal analysis. The course consists almost entirely of laboratory work, so the number of students is restricted.

Classes 1 hr. and lab 1 1/2 hours a week. 1 semester.

475.1(.2)-478.1(.2); 479.0; 480.0 Seminar in Anthropology

Prerequisite: one (1.0) 200 level university credit.

To be offered in response to expressed student desire for advanced instruction in anthropological topics not covered intensively in substantive course offerings; or to take advantage of expertise of visiting scholars. The format is usually that of a seminar.

Classes 1 hr. and lab 1 1/2 hours a week. 1 semester.

491.1(.2) Ethnography of Communication

[LIN 491.1(.2)]

Prerequisite: ANT 290.1(.2) or one half (0.5) credit in LIN.

Introduction to communication description as developed by Dell Hymes and John J. Gumperz. Observation and practical analysis (fieldwork) of communicative events in diverse situations. Cross-cultural comparison of communication activities.

Classes 1 hr. and lab 1 1/2 hrs. a week. 1 semester.

492.1(.2) Anthropological Analysis of Linguistic Communities

[LIN 492.1(.2)]

Prerequisite: ANT 290.1(.2) or one half (0.5) credit in LIN.

Language as a criterion to delimit group boundaries. The relationships between cultural and linguistic norms. Comparative analysis of linguistic behavior. One case study or geographical area chosen at each offering of the course (either one language in different social contexts, or the interacting ethnolinguistic groups in one region).

Classes 1 hr. and lab 1 1/2 hrs. a week. 1 semester.

501.1(.2) Honors Thesis Research

Prerequisite: restricted to students who have been accepted by the department into the honors program.

The application of anthropological theory and methods to a well-defined area of study identified and communicated to the student's honors thesis

committee prior to enrolment. Students will work closely with their principal advisors and two other committee members.

502.1(.2) Honors Thesis Writing

Prerequisite: ANT 501.1(.2).

This course examines the communication of the results of anthropological inquiry to the scholarly community through the writing of an honors thesis

essay. While students will work closely with their thesis committees, all faculty members of the department will evaluate theses on the basis of content and style.

HOMBURG INTERNATIONAL AWARDS

In January 2004, Richard Homburg provided a very prestigious donation to fund these awards for approved international study abroad.



President J. Colin Dodds reading from the Plaque of Appreciation presented to Richard Homburg in recognition of the establishment of the Homburg Mobility Awards, 16 January 2004.

Asian Studies (ASN)

Committee on Asian Studies

J. Morrison, Coordinator	History
P. Bowlby	Religious Studies
H. Das	Management
M. Doucet	Political Science
A. Harvey	Economics
E. Keeble	Political Science
H. McGee	Anthropology
H. Millward	Geography
H. Ogden	Marketing
P. Secord	Accounting
S. Walter	Anthropology
S. Wein	Philosophy

The Asian Studies degree program at Saint Mary's University has been in operation for over twenty years. In that time frame, the Arts and Commerce faculties have played a vital part in helping Saint Mary's students understand Canada's changing role in a global society and especially in defining its relationship with Asia. An informed knowledge of Asian languages and cultures is an essential component to this program and every effort is made to assist students of the program to travel to Asia and experience this vast continent themselves. Students are encouraged to pursue a double major in Asian Studies and a related discipline.

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 degree-granting program in Asian Studies. In addition to the programs of study described here, your attention is directed to the descriptions of the Certificate of Chinese Studies and the Certificate of Japanese Studies found in the Faculty of Arts (Undergraduate) entry, Section 3 of this *Calendar*.

Regulations for Majors

Although it is possible to complete a major in Asian Studies with 15.0 credits, extra time and additional credits will often be desirable and necessary. Facility in an Asian language is important and possible participation in cultural exchange programs in Asia will provide a deeper understanding of Asian societies. Students intending to complete a major in Asian Studies are required to complete 7.0 credits. These 7.0 credits must include the following with a minimum of 4.0 credits at the 300 level or above.

- a. two (2.0) consecutive Asian language credits (Introductory and Intermediate).
- b. one (1.0) full credit in the following: HIS 222.1(.2); HIS 223.1(.2); REL 220.1(.2) or REL 221.1(.2)
- c. ASN 300.1(.2) and ASN 400.1(.2).
- d. three (3.0) additional core credits from at least two different disciplines other than languages. The list of core courses is given below.

For first year students interested in completing an honors or major in Asian Studies, the following introductory courses will meet three of the four General Arts requirements, namely:

Requirement 3b

ARA 100.0 Introductory Arabic

JPN 100.0 Introductory Japanese
CHI 100.0 Introductory Modern Chinese

Requirement 3c

HIS 208.1(.2) Global History: 1450 to the Present
HIS 222.1(.2) History of Asia: East Asia
HIS 223.1(.2) History of Asia: South and Southeast Asia
REL 220.1(.2) Introduction to Comparative Religion I
REL 221.1(.2) Introduction to Comparative Religion II

Requirement 3d

One (1.0) credit from:

ANT 202.1(.2) Introduction to Ethnology and Social Anthropology
ANT 280.1(.2) Introduction to Biological Anthropology
ANT 290.1(.2) Introduction to Human Communication
ECO 201.1(.2) Principles of Economics: Micro
ECO 202.1(.2) Principles of Economics: Macro
GPY 203.1(.2) Physical Geography: Global Patterns
GPY 204.1(.2) Demographics and Culture
GPY 213.1(.2) Physical Geography: Local and Regional Patterns
GPY 214.1(.2) Environment and Livelihood
POL 200.0 Introductory Political Science
SOC 210.1(.2) Introductory Sociology
SOC 212.1(.2) Understanding Society

Regulations for Honors

1. 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.
2. Students seeking an honors degree in Asian Studies are required to pursue a major program in one of the departments offering Asian Studies courses. See Faculty of Arts regulation 14.
3. Students in either an honors or double honors program in Asian Studies must complete at least ten (10.0) credits and satisfy the following requirements:
 - a. at least three (3.0) credits in Asian languages, one of which must be at the intermediate level;
 - b. one (1.0) full credit of the following: HIS 222.1(.2); HIS 223.1(.2); REL 220.1(.2) or REL 221.1(.2).
 - c. core courses ASN 300.1(.2) and ASN 400.1(.2);
 - d. at least one (1.0) Asian Studies credit from the following departments: Anthropology, Economics, Geography, Political Science or Sociology;
 - e. An honors thesis (ASN 500.0) will 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;
 - f. Annual approval of their program of study by the Coordinator of the Asian Studies Committee.

Regulations for Minors

Students majoring in another academic discipline may obtain a minor in Asian Studies by completing the equivalent of four (4.0) credits approved for the program:

These must be:

- (a) ARA 100.0; CHI 100.0; or JPN 100.0;
- (b) ASN 300.1(.2) and ASN 400.1(.2); and
- (c) two (2.0) credits from any academic discipline regarded as part of the Asian Studies Program (see below).

Minor in Chinese Studies

Students in the undergraduate Arts program who are not Asian Studies majors can complete a minor in Chinese Studies by completing the following courses: CHI 100.0; ASN 300.1(.2) and 400.1(.2); and two (2.0) other courses on China in at least two different disciplines taken from the following list:

ANT 326.1(.2); ASN 305.1(.2); ASN 310.1(.2); ASN 450.0; CHI 200.0; GPY 380.1(.2); HIS 222.1(.2); HIS 381.1(.2); HIS 382.1(.2); HIS 383.1(.2); HIS 511.0; REL 327.1(.2); REL 345.1(.2).

Transfer credits from other academic institutions may be recognized.

Minor in Japanese Studies

Students in the undergraduate Arts program who are not Asian Studies majors can complete a minor in Japanese Studies by completing the following courses: JPN 100.0; ASN 300.1(.2) and 400.1(.2) and two (2.0) other courses on Japan in at least two different disciplines taken from the following list:

ANT 326.1(.2); ANT 327.1(.2); ASN 302.1(.2); ASN 303.1(.2); ASN 410.1(.2); GPY 360.1(.2); HIS 222.1(.2); HIS 354.1(.2); HIS 355.1(.2); HIS 356.1(.2); HIS 511.0; JPN 200.0; REL 327.1(.2); REL 340.1(.2).

Transfer credits from other academic institutions may be recognized.

Information concerning the requirements for the Certificate of Chinese Studies Program and also the Certificate of Japanese Studies Program are found in the Faculty of Arts (Undergraduate) portion of Section 3 of this *Calendar*.

Regulation for Concentrations

To obtain concentrations in Asian Studies, Chinese Studies, or Japanese Studies in partial fulfillment of the B.A. General Degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits, a minimum of four (4.0) credits in one of these three subject areas is required; also a minimum cumulative quality point average of 2.00. Further details are available from the co-ordinator.

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

- 326.1(.2) Ethnology: East Asia
- 327.1(.2) Ethnology: Japan

Asian Studies

- 300.1(.2) Multidisciplinary Study of Asia
- 301.0; 304.1(.2)-306.1(.2) Selected Topics in Asian Studies
- 302.1(.2) Japan in Film and Literature
- 303.1(.2) Contemporary Japan: Institutions and Culture
- 305.1(.2) Contemporary China: Institutions and Culture
- 310.1(.2) Chinese Film and Literature
- 311.1(.2) Southeast Asian Popular Culture
- 400.1(.2) Seminar in Asian Studies
- 401.0; 402.1(.2)-406.1(.2) Selected Topics in Asian Studies
- 407.0 Study Abroad: Japan
- 408.0 Study Abroad: China
- 410.1(.2) Special Topics on Japan
- 450.0 China, Eternal and Transforming: Travel and Study
- 490.1(.2)-499.1(.2) Directed Study
- 500.0 Honors Thesis

Geography

- 360.1(.2) Geography of Japan
- 380.1(.2) Geography of China

History

- 222.1(.2) History of Asia: East Asia
- 223.1(.2) History of Asia: South and Southeast Asia
- 354.1(.2) Japan Before 1800
- 355.1(.2) The Rise and Fall of Imperial Japan 1800-1945
- 356.1(.2) Japan Since 1945
- 358.1(.2) Mughal to Modern India
- 363.1(.2) Asian Crossroads: Southeast Asia 1500-1900
- 364.1(.2) Modern Southeast Asia
- 381.1(.2) China Before 1800
- 382.1(.2) China in Revolution 1800-1949
- 383.1(.2) China Since 1947
- 511.0 Seminar in East Asian History

Modern Languages and Classics - Arabic

- 100.0 Introduction to Arabic
- 200.0 Intermediate Arabic

Modern Languages and Classics - Chinese

- 100.0 Introductory Modern Chinese
- 200.0 Intermediate Modern Chinese

Modern Languages and Classics - Japanese

- 100.0 Introductory Japanese
- 200.0 Intermediate Japanese

Religious Studies

- 220.1(.2)/221.1(.2) Introduction to Comparative Religion I & II
- 323.1(.2) [423.1(.2)] The Islamic Religious Tradition
- 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)] Violence and Non-Violence: East and West
- 345.1(.2) [445.1(.2)] Chinese Religious Traditions
- 359.1(.2) [459.1(.2)] The Buddhist Path

Sociology

- 447.1(.2) Work and the Empowerment of Women in India

Asian Studies Courses

300.1.(2) Multidisciplinary Study of Asia

This half course will introduce students to the study of Asia from a multidisciplinary perspective. Using various disciplines in the humanities, social science and commerce fields, students will review how various disciplines intersect to create a fuller understanding of Asia.

301.0; 304.1.(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 multi-disciplinary in nature. The topics to be examined will be determined by the instructor and/or Department.

302.1.(2) Japan in Film and Literature

This course will explore the cultural representation of traditional and modern Japanese culture through film and literature. Focus will be on major works of Japanese literature, ranging from pre-modern poetry to modern fiction, as well as their cinematic adaptations. All selected works of literature are in English translation. No knowledge of the Japanese language is required.

303.1.(2) Contemporary Japan: Institutions and Culture

This course will introduce modern Japan, accentuating the institutions of family, school, and workplace. Emphasis will be placed on values, social participation, and the individual's position within the context of contemporary Japanese society. No knowledge of the Japanese language is required.

305.1.(2) Contemporary China: Institutions and Culture

This course will introduce modern China, accentuating the institutions of family, school, and workplace. Emphasis will be placed on values, socio-cultural practices, and the individual's position within contemporary Chinese society. No knowledge of the Chinese language is required.

310.1.(2) Chinese Film and Literature

This course will explore the rich Chinese culture through representative major works of modern literature, as well as new film and contemporary art in China and Taiwan. Major themes to be considered include the family, the changing role of women, Western influences, modernization, and national identity. All selected works of literature are in English translation. No knowledge of the Chinese language is required.

311.1.(2) Southeast Asian Popular Culture

This course will study the development of fiction and film in the rich and varied cultural traditions of several Southeast Asian countries, namely Indonesia, Malaysia, the Philippines, Thailand and Vietnam. Other aspects of popular culture such as drama, music and art will be considered as well.

400.1.(2) Seminar in Asian Studies

Prerequisite: ASN 300.1.(2) and 2.0 core credits in Asian Studies.

This half course will provide an opportunity for Asian Studies students to integrate their knowledge of Asia in a multidisciplinary fashion. This course may include case studies, specific area studies and comparative approaches to regions in Asia. Both students and faculty involved in the Asian Studies program will participate in this course.

401.0; 402.1.(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 multi-disciplinary in nature. The topics to be examined will be determined by the instructor and/or Department.

407.0 Study Abroad: Japan

Prerequisite: JPN 100.0.

This course is available to all students who participate in Saint Mary's University's study abroad program in Japanese. Evaluation will be based on short-term cultural courses held in Japan and a written assignment to be submitted to the Asian Studies Co-ordinator upon completion of the overseas study.

408.0 Study Abroad: China

Prerequisite: CHI 100.0.

This course is available to all students who participate in Saint Mary's University's study abroad program in China. Evaluation will be based on short-term cultural courses held in China and a written assignment to be submitted to the Asian Studies Co-ordinator upon completion of the overseas study.

410.1.(2) Special Topics on Japan

Prerequisite: 1.0 Asian Studies credit 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 in China with guided tours of urban centres and cultural sites. Students will be accompanied by a faculty member from Saint Mary's, and on-site instruction will be provided. Subjects taught will cover a broad range of topics on Chinese language, history, and culture. The course is offered contingent upon sufficient enrolment.

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.

500.0 Honors Thesis

Prerequisite: admission to final year of the honors program.

Asian Studies students are required to submit and defend a thesis to be selected and prepared in conjunction with a faculty advisor.

Astronomy and Physics (AST and PHY)

Chairperson, Professor
Professors

M. Butler
D. Clarke, R. Deupree,
D. Guenther, G. Mitchell,
D. Turner, G. Welch

Associate Professors
Assistant Professor
Observatory Director
Graduate Co-ordinator
Adjunct Professors

J. Hahn, A. Sarty
I. Short
G. Welch
D. Guenther
P. Bennett, A. Coley, M. Jain,
P. Noerdlinger

Emeritus Professor

W. Lonc

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 computer 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 that 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 215.1(.2), AST 216.1(.2) and AST 217.1(.2) are non-mathematical half-credit courses (0.5) intended for non-specialists. 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 in a variety of areas in astronomy and astrophysics, and are suitable as electives for science majors (item 5b of the Faculty of Science requirements for Undergraduate Programs), including students in Co-operative Education programs.

Note: 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.

Undergraduate Courses

205.1(.2) General Astronomy I

Prerequisite: Nova Scotia Grade 12 Physics and Nova Scotia Grade 12 Math Pre-calculus.

This course provides a mathematics-based and physics-based introduction to general and solar system astronomy for students specializing in physical sciences. The course, in conjunction with AST 206.1(.2), also provides a comprehensive introduction to astronomy for Astrophysics (ASP) majors. The topics presented include: the celestial sphere and objects of the night sky, the development of astronomy as a science, the orbits of Earth and other planets, time measurement, eclipses and their prediction, telescopes and astronomical instruments, and the solar system. Homework consists of a mix of laboratory and observing exercises completed outside of regular class times, as well as regular assignments. Students have access to the Burke-Gaffney

Observatory on campus and Department equipment for exercises involving the use of a telescope.

Classes 3 hrs. and lab/telescope observing 1 hr. a week. 1 semester.

206.1(.2) General Astronomy II

Prerequisite: Nova Scotia Grade 12 Physics and Nova Scotia Grade 12 Math Pre-calculus.

This course provides a mathematics-based and physics-based introduction to stellar, galactic, and extragalactic astronomy for students specializing in the physical sciences. This course, in conjunction with AST 205.1(.2), also provides a comprehensive introduction to astronomy for Astrophysics (ASP) majors. The topics presented include the origin of the solar system and other stellar systems, the Sun as a star, properties of stars and star clusters, gaseous nebulae, white dwarfs and stellar evolution, supernovae and pulsars, black holes and X-ray binaries, the structure of our Milky Way Galaxy, the properties of external galaxies and quasars, and the nature of the universe. Homework consists of a mix of laboratory and observing exercises completed outside of regular class time, as well as regular assignments. Students have access to Burke-Gaffney Observatory on campus and Department equipment for exercises involving the use of a telescope.

Classes 3 hrs. and lab/telescope observing 1 hr. a week. 1 semester.

215.1(.2) The Sky and Planets

This course provides an introduction to general astronomy for students who are not science majors and who have little background in science and mathematics. The topics presented include: an introduction to the night sky and where to locate objects of interest, the motions and phases of the Moon and planets, timekeeping and the calendar, the historical development of astronomy as a science, eclipses of the Sun and the Moon, telescopes and instruments for detecting and measuring light from celestial objects, and the planets and other members of our solar system. Homework exercises consist of laboratory and observing exercises that are done outside of regular class times. Students have access to the Burke-Gaffney Observatory on campus for exercises involving the use of a telescope.

Classes 3 hrs. and lab/telescope observing 1 hr. a week. 1 semester.

216.1(.2) Stars and Galaxies

This course provides an introduction to general astronomy for students who are not science majors and who have little background in science and mathematics. Although the topics presented follow sequentially those of AST 215.1(.2), the course may be taken separately or concurrently. The topics presented include: the Sun as a star, the properties of stars and star clusters, the evolution of stars, gaseous nebulae, the properties of our Galaxy, other galaxies beyond the Milky Way, and quasars, active galaxies, and the universe. Homework exercises consist of laboratory and observing exercises that are done outside of regular class times. Students have access to the campus Burke-Gaffney Observatory for exercises involving the use of a telescope.

Classes 3 hrs. and lab/telescope observing 1 hr. a week. 1 semester.

217.1.(2) Life in the Universe

The possibility that life might exist elsewhere in the universe has fascinated human beings ever since our ancestors first gazed into the starry skies. Could life also have arisen on other worlds, or is the Earth unique? Are there other intelligent civilizations in the cosmos with whom we might someday make contact? In this course the question of extraterrestrial life is considered from astronomical, biological and sociological perspectives. Topics discussed include planets, stars and galaxies, our place in the universe, the origin and evolution of life on Earth, searches for extraterrestrial life, the Anthropic Principle, UFOs, and more.

312.1.(2) Foundations of Astrophysics

Prerequisite: AST 205.1.(2) and 206.1.(2); MAT 211.1.(2), PHY 211.1.(2).

This course is concerned primarily with directly observable quantities: the positions of stars in the sky, their motions, and the light they emit. Students will become involved with one or more observing projects using the Burke-Gaffney Observatory's 40-cm telescope. Class discussion will begin with the celestial sphere, time in astronomy, and astronomical catalogs. Topics in celestial mechanics will include the two-body problem, and the dynamic characteristics of star clusters. Properties of the continuous spectra of stars will be reviewed, and this will lead to a discussion of the formation of emission and absorption lines in the Bohr model. The course will conclude by examining the operation of astronomical telescopes.

Classes 3 hrs. a week and telescope observing session.

313.1.(2) Properties of Stars

Prerequisite: AST 312.1.(2) or permission of instructor.

This course reviews one of the major scientific achievements of the 20th Century, the quantitative understanding of the nature of the stars. This course begins with a discussion of binary stars and their use in determining stellar properties, and is followed by a discussion of spectral classification, and its interpretation, using the Boltzmann and Saha equations. The characteristics of radiative transfer will be discussed as they relate to modelling the atmospheres of stars. The equations of stellar structure will be derived, and these will be used to discuss the interiors of hydrogen burning stars, with special attention given to the Sun.

412.1.(2) Interstellar Matter and Stellar Evolution

Prerequisite: AST 313.1.(2) or permission of instructor.

The course begins by examining the physical processes within neutral and ionized clouds and is followed by a discussion of star formation. Concepts introduced in AST 313.1.(2) are used to follow the evolution of stars of various initial mass, elucidating their internal structure and energy production. Finally, attention will turn to the physical properties of stellar remnants; white dwarfs and neutron stars.

413.1.(2) Galaxies and Cosmology

Prerequisite: AST 313.1.(2) or permission of instructor.

The observed properties of our Milky Way galaxy and their theoretical interpretation will be the initial focus of this course. Subjects to be examined will include the kinematic properties of nearby stars, the nature of galactic rotation, the cause of spiral structure, and the formation of the galaxy. The observed features of other galaxies will be summarized, with emphasis on how these features may have arisen through evolutionary processes which include galaxy interactions. Attention will then shift to the physical properties and evolution of galaxy clusters, and to the large scale structure of our universe. This will lead to a discussion of modern cosmological models and recent observational tests of the models.

435.1.(2) Data Analysis in Astronomy

Prerequisite: AST 312.1.(2) or permission of instructor.

The goal of this course is to instruct the student in the analysis of real 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.

445.1.(2) Solar System Astronomy

Prerequisite: AST 206.0 and PHY 211.1.(2), 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.

Graduate Courses

While the 600-level courses are intended primarily for graduate students in astronomy, fourth year students in either the major or honors programs may enrol in these courses with the permission of the Department if the other requirements for the degree are satisfied. Interested undergraduate students should consult the Chairperson or Undergraduate Coordinator before enrolling in these courses.

Courses are classified as either core or elective. Core courses are offered every other year and are designated above with an * in front of each course number/title.

***602.1.(2) Galactic Astronomy**

This course describes the contents and structure of the Milky Way Galaxy. Topics covered include: historical highlights, reference frames and stellar astronomy, 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.

***604.1.(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.

607.1.(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.

608.1.(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.

Seminar 3 hrs. a week.

***609.1.(2) Galaxies Beyond the Milky Way**

This course summarizes our understanding of nearby galaxies, and of how these galaxies evolved to the objects we see today. A review of our concept of the nebulae introduces the main topics, which include galaxy classification, the nature of the present stellar population and interstellar medium in galaxies, and galaxies as they were in the remote past. The presentation will reflect our growing awareness of the importance of interactions between and among galaxies as an agent of their evolution.

611.1.(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.

***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.

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.

616.1.(2) Astronomical Instruments and Techniques

This course reviews current methods of collecting and interpreting electromagnetic information from the cosmos. It begins by discussing factors which limit the accuracy of light measurement from extremely energetic gamma radiation to decimetric radio waves. The following discussion of astronomical telescopes and detectors shows how those factors have influenced both hardware design and observing techniques. Special emphasis will be given to radio interferometry.

***619.1.(2) Cosmology**

Cosmology—the study of the large-scale structure and evolution of the universe—is one of the most exciting and active fields of astronomy today. This course presents a broad overview of observational and theoretical cosmology. Emphasis is on how basic physics, guided by observations, is used to construct a remarkably successful model of the universe. Topics include the Big Bang model, formation of galaxies and clusters of galaxies, the large-scale structure of the universe, quasars and radio galaxies, and dark matter.

620.1.(2) Clusters of Galaxies

Clusters of galaxies are the largest gravitationally bound objects in the universe, and their study has yielded valuable insights into such diverse topics as high energy astrophysics, galaxy formation and evolution and cosmology. This course introduces students to clusters of galaxies from both observational and theoretical perspectives. Topics discussed include galaxy populations, dark matters, the intracluster medium, gravitational lensing, and clusters as tracers of the large-scale structure of the universe.

622.1.(2) Astrophysical Dynamics

Topics covered include: the dynamics of the solar system, the origin and evolution of planetary systems, the dynamics and evolution of star clusters, structure and dynamics of our Galaxy, the theory of spiral structure, and the formation and dynamical evolution of galaxies. The course includes an introduction to the dynamical modelling of planetary systems, star clusters, and galaxies.

635.1.(2) Computational Methods

This course introduces students to the details of computational numerical approaches used for solving theoretical problems in astrophysical research. The methods covered are those that students can expect to use for computationally-oriented modelling in theoretical astrophysics. Students should expect to obtain extensive “hands-on” experience and must be able to program in one or more scientific computing languages (preferably FORTRAN or C). Specific approaches discussed include Monte Carlo, finite element, finite difference, and smoothed particle hydrodynamics.

637.1.(2) Astrophysical Hydrodynamics

An introduction to astrophysical fluids and plasmas. Topics covered include the Boltzmann and moment equations, the Navier-Stokes equations, turbulence, gas dynamics, the Vlasov Equation, and BBGKY hierarchy, basic magnetohydrodynamics, magnetic reconnection and dynamo theory, acoustic and Alfvén waves, instabilities, and shocks. Applications to astrophysical phenomena such as stellar winds, solar and stellar activity cycles, accretion, and jets are discussed.

***695.1.(2) Graduate Seminar I**

Articles of interest from the current literature are discussed and critiqued. Students are expected to read articles chosen for discussion, contribute to the critiquing process, and make several presentations during the course. All graduate students must normally enrol in this course in the first year of the Master of Science program.

Seminar 11/2 hrs. a week. 2 semesters.

***696.1.(2) Graduate Seminar II**

A continuation of AST 695.1.(2) normally taken by graduate students in the second year of the Master of Science program.

Seminar 11/2 hrs. a week. 2 semesters.

697.0 Research Project in Astronomy

This required course for the graduate program must be taken in either the first or second year of study. Students earn credit for the course in the first year of the Master of Science program by completing a project on a research topic under the supervision of a faculty member. The research topic may, but need not, be related to the thesis project chosen. Students earn credit for the course in the second year of the Master of Science program through concentrated research related to their thesis project or by completion of an independent project with, perhaps, a faculty member other than their thesis supervisor.

698.0 Thesis

Normally taken during the second year of enrolment in the Master of Science program after successful completion of the comprehensive oral examination. The research will be conducted under the supervision of a faculty member.

699.0 Doctoral Dissertation

The dissertation consists of an original research topic in astronomy undertaken by the student and prepared as a formal written treatment of their research, which is then defended publicly. The course is normally taken during the third through fifth years of enrolment in the doctoral program after successful completion of the Ph.D. written comprehensive examination and approval of the dissertation proposal. The research is conducted under the supervision of a faculty member. Registration must be approved by a Chair or Supervisor prior to registration and in writing.

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 education in astronomy at the graduate level. Students in the major program must complete seven (7.0) physics credits and three (3.0) astronomy credits, of which two (2.0) of the astronomy credits must come from astronomy courses at the 300 level or above, and the other astronomy credit (1.0) must be AST 205.1(.2) and 206.1(.2) (or equivalent). Students in the honors program must complete nine and one-half (9.5) physics credits and three and one-half (3.5) astronomy credits, of which two and one-half (2.5) must come from astronomy courses at the 300 level or above, and the other astronomy credit (1.0) must be AST 205.1(.2) and 206.1(.2) (or equivalent). Those courses listed in the respective programs are 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

1. AST 205.1(.2) and 206.1(.2)
2. PHY 210.1(.2) and 211.1(.2)
3. MAT 210.1(.2) and 211.1(.2)
4. EGL 205.1(.2) and one half (0.5) credit in humanities
5. one (1.0) credit science elective (CHE 210.1(.2)/211.1(.2) recommended)

Year 2

1. AST 312.1(.2) and 313.1(.2)
2. PHY 305.1(.2) and 306.1(.2)
3. PHY 326.1(.2) and 335.1(.2)
4. PHY 355.1(.2) and one half (0.5) credit science elective [CSC 226.1(.2) or EGN 204.1(.2) recommended]
5. MAT 310.1(.2) and 311.1(.2) [one (1.0) science elective]

Year 3

1. either AST 412.1(.2) or 413.1(.2); and PHY 465.1(.2)
2. PHY 405.1(.2) and 417.1(.2)
3. PHY 435.1(.2) and either PHY 436.1(.2) or 437.1(.2)
4. one half (0.5) credit elective and either PHY 457.1(.2) or one half (0.5) elective
5. one (1.0) credit arts/ECO elective

Year 4

1. one half (0.5) science elective; and either AST 412.1(.2) or 413.1(.2)
2. PHY 466.1(.2) and either PHY 457.1(.2) or one half (0.5) credit elective
3. one (1.0) credit elective
4. one (1.0) credit arts/ECO elective
5. one (1.0) credit science elective

b. Honors Astrophysics Program

Year 1

1. AST 205.1(.2) and 206.1(.2)
2. PHY 210.1(.2) and 211.1(.2)

3. MAT 210.1(.2) and 211.1(.2)
4. EGL 205.1(.2) and one half (0.5) credit in humanities
5. one (1.0) credit science elective (CHE 210.1(.2)/211.1(.2) recommended)

Year 2

1. AST 312.1(.2) and 313.1(.2)
2. PHY 305.1(.2) and 306.1(.2)
3. PHY 326.1(.2) and 335.1(.2)
4. PHY 355.1(.2) and one half (0.5) credit science elective [CSC 226.1(.2) or EGN 204.1(.2) recommended]
5. MAT 310.1(.2) and 311.1(.2) [one (1.0) science elective]

Year 3

1. either AST 412.1(.2) or 413.1(.2); and PHY 465.1(.2)
2. PHY 405.1(.2) and 417.1(.2)
3. PHY 435.1(.2) and 436.1(.2)
4. PHY 437.1 and either PHY 445.1(.2) or 457.1(.2)
5. one (1.0) credit arts/ECO elective

Year 4

1. one half (0.5) credit in AST at the 600 level and either AST 412.1(.2) or 413.1(.2)
2. PHY 466.1(.2) and either PHY 445.1(.2) or PHY 457.1(.2)
3. one half (0.5) credit science elective and one half (0.5) credit from PHY 467.1(.2) or above
4. PHY 500.0
5. one (1.0) credit arts/ECO elective credit

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 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 210.1(.2) and 211.1(.2)
MAT 210.1(.2) and 211.1(.2)

EGL 205.1(.2) and one half (0.5) credit in humanities
two (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 326.1(.2) PHY 335.1(.2)
- PHY 355.1(.2) PHY 405.1(.2)
- PHY 417.1(.2) PHY 435.1(.2)
- PHY 436.1(.2) PHY 437.1(.2)
- PHY 445.1(.2) PHY 446.1(.2)
- PHY 457.1(.2) PHY 465.1(.2)
- PHY 466.1(.2) PHY 467.1(.2)
- PHY 472.1(.2) PHY 473.1(.2)
- PHY 474.1(.2)

Additional elective(s) from science and humanities must be chosen to complete the program.

b. Physics Major

Year 1

1. PHY 210.1(.2) and 211.1(.2)
2. MAT 210.1(.2) and 211.1(.2)
3. EGL 205.1(.2) and one half (0.5) credit in humanities
4. one (1.0) credit science elective (CHE 210.1(.2)/211.1(.2) recommended)
5. one (1.0) credit arts/ECO elective

Year 2

1. PHY 305.1(.2) and 306.1(.2)
2. PHY 335.1(.2) and 326.1(.2)
3. PHY 355.1(.2) and one half credit (0.5) elective
4. MAT 310.1(.2) and 311.1(.2) [one (1.0) science elective]
5. one (1.0) credit science elective [CSC 226.1(.2) or EGN 204.1(.2) recommended for one half (0.5) credit.]

Year 3

1. PHY 405.1(.2) and 417.1(.2)
2. PHY 435.1(.2) and 436.1(.2)
3. PHY 465.1(.2) and either PHY 445.1(.2) or 446.1(.2)
4. PHY 437.1(.2) and either PHY 457.1(.2) or one half (0.5) credit elective
5. one (1.0) credit arts/ECO elective

Year 4

1. PHY 466.1(.2) and either PHY 457.1(.2) or one half (0.5) credit elective
2. one (1.0) credit science elective
3. one (1.0) credit elective
4. one (1.0) credit elective
5. one (1.0) credit elective

c. Physics Honors

Year 1

1. PHY 210.1(.2) and 211.1(.2)
2. MAT 210.1(.2) and 211.1(.2)
3. EGL 205.1(.2) and one half (0.5) credit in humanities
4. one (1.0) credit science elective (CHE 210.1(.2)/211.1(.2) recommended)
5. one (1.0) credit arts/ECO elective

Year 2

1. PHY 305.1(.2) and 306.1(.2)
2. PHY 326.1(.2) and 335.1(.2)
3. PHY 355.1(.2) and one half (0.5) credit elective
4. MAT 310.1(.2) and 311.1(.2) [one (1.0) credit science elective]

5. one (1.0) credit science elective [CSC 226.1(.2) or EGN 204.1(.2) recommended for one half (0.5) credit.]

Year 3

1. PHY 405.1(.2) and 417.1(.2)
2. PHY 435.1(.2) and 436.1(.2)
3. PHY 445.1(.2) and 465.1(.2)
4. PHY 437.1(.2); and either PHY 457.1(.2) or one half (0.5) credit elective
5. one (1.0) credit arts/ECO elective

Year 4

1. one half (0.5) credit elective and either PHY 457.1(.2) or one half (0.5) credit elective
2. PHY 446.1(.2) and 466.1(.2)
3. one (1.0) credit from PHY 467.1(.2), 472.1(.2), 473.1(.2), and 474.1(.2)
4. PHY 500.0
5. one (1.0) credit science elective

d. Double Major in Mathematics and Physics

Year 1

1. MAT 210.1(.2) and 211.1(.2)
2. CSC 226.1(.2) and 227.1(.2)
3. PHY 210.1(.2) and 211.1(.2)
4. EGL 205.1(.2) and one-half (0.5) credit in humanities
5. one (1.0) credit science elective (CHE 210.1(.2)/211.1(.2) recommended)

Year 2

1. MAT 310.1(.2) and 311.1(.2)
2. MAT 320.1(.2) and 321.1(.2)
3. PHY 305.1(.2) and 306.1(.2)
4. PHY 326.1(.2) and 355.1(.2)
5. one (1.0) credit arts/ECO elective

Year 3

1. MAT 405.1(.2) and either MAT 436.1(.2) or 456.1(.2)
2. PHY 405.1(.2) and PHY 417.1(.2)
3. PHY 437.1(.2) and 465.1(.2)
4. one half (0.5) credit elective and either PHY 457.1(.2) or one half (0.5) credit elective
5. one (1.0) credit science elective

Year 4

1. one (1.0) credit from MAT courses numbered 404 or above
2. one (1.0) credit from MAT courses numbered 404 or above
3. PHY 466.1(.2) and either PHY 457.1(.2) or one half (0.5) credit elective
4. one (1.0) credit arts/ECO elective
5. one (1.0) credit elective

e. Honors Mathematics and Physics

Year 1

1. MAT 210.1(.2) and 211.1(.2)
2. CSC 226.1(.2) and 227.1(.2)
3. PHY 210.1(.2) and 211.1(.2)
4. EGL 205.1(.2) and one half (0.5) credit in humanities
5. one (1.0) credit science elective (CHE 210.1(.2)/211.1(.2) recommended)

Year 2

1. MAT 310.1(.2) and 311.1(.2)
2. MAT 320.1(.2) and 321.1(.2)
3. PHY 305.1(.2) and 306.1(.2)
4. PHY 326.1(.2) and 355.1(.2)
5. one (1.0) credit arts/ECO elective

Year 3

1. MAT 405.1(.2) and 406.1(.2)
2. either MAT 436.1(.2) and 437.1(.2); or MAT 456.1(.2) and 457.1(.2)
3. PHY 405.1(.2) and PHY 417.1(.2)
4. PHY 437.1(.2) and PHY 465.1(.2)
5. one half (0.5) arts/ECO elective and either PHY 457.1(.2) or one half (0.5) credit arts/ECO elective

Year 4

1. one (1.0) credit from MAT courses numbered 404 or above
2. one (1.0) credit from MAT courses numbered 404 or above
3. PHY 466.1(.2) and either PHY 457.1(.2) or one half (0.5) credit arts/ECO elective
4. one (1.0) credit from PHY 467.1(.2), 472.1(.2), 473.1(.2), 474.1(.2)
5. MAT 500.0 or PHY 500.0

f. Double Major in Chemistry and Physics

Students should be aware of the specific requirements for double majors in chemistry noted in the Chemistry section of the *Calendar*.

Year 1

1. CHE 210.1(.2) and 211.(.2) or 212.1(.2) or 213.1(.2)
2. PHY 210.1(.2) and 211.1(.2)
3. MAT 210.1(.2) and 211.1(.2)
4. EGL 205.1(.2) and one half (0.5) credit in humanities
5. one (1.0) credit arts/ECO elective

Year 2

1. MAT 310.1(.2) and 311.1(.2)
2. either CHE 322.1(.2) and 323.1(.2); or CHE 332.1(.2) and 333.1(.2); or CHE 344.1(.2) and 345.1(.2);
3. PHY 305.1(.2) and 326.1(.2)
4. PHY 335.1(.2) and 355.1(.2)
5. CHE 312.1(.2) and one half (0.5) credit elective [CSC 226.1(.2) or EGN 204.1(.2) recommended]

Year 3

1. CHE 313.1(.2); and either PHY 457.1(.2) or one half (0.5) credit elective
2. CHE 322.1(.2) and 323.1(.2); or CHE 332.1(.2) and 333.1(.2); or CHE 344.1(.2) and 345.1(.2)
3. PHY 405.1(.2) and 465.1(.2)
4. PHY 435.1(.2) and either PHY 436.1(.2) or PHY 437.1(.2)
5. one (1.0) credit arts/ECO elective

Year 4

1. one (1.0) credit from CHE numbered 400 or above
2. one (1.0) credit from CHE numbered 400 or above
3. PHY 466.1(.2) and either PHY 457.1(.2) or one half (0.5) credit elective
4. one (1.0) credit elective
5. one (1.0) credit science elective

g. Honors Chemistry and Physics

Students should be aware of the specific requirements for double honors in chemistry noted in the Chemistry section of the *Calendar*.

Year 1

1. CHE 210.1(.2) and 211.1(.2) or 212.1(.2) or 213.1(.2)
2. PHY 210.1(.2) or 211.1(.2)
3. MAT 210.1(.2) and 211.1(.2)

4. EGL 205.1(.2) and one half (0.5) credit in humanities
5. one (1.0) credit arts/ECO elective

Year 2

1. MAT 310.1(.2) and 311.1(.2) [one (1.0) science elective]
2. CHE 322.1(.2) and 323.1(.2); or CHE 332.1(.2) and 333.1(.2); or CHE 344.1(.2) and 345.1(.2)
3. PHY 305.1(.2) and 326.1(.2)
4. PHY 335.1(.2) and 355.1(.2)
5. CHE 312.1(.2) and one half (0.5) arts/ECO elective

Year 3

1. CHE 313.1(.2) and PHY 437.1(.2)
2. CHE 322.1(.2) and 323.1(.2); or CHE 332.1(.2) and 333.1(.2); or CHE 344.1(.2) and 345.1(.2)
3. PHY 405.1(.2) and 465.1(.2)
4. PHY 435.1(.2) and 436.1(.2)
5. PHY 445.1(.2) and either PHY 457.1(.2) or one half (0.5) credit arts/ECO elective

Year 4

1. CHE 498.0
2. one (1.0) credit from CHE numbered 400 or above
3. one (1.0) credit from CHE numbered 400 or above
4. PHY 466.1(.2) and either PHY 457.1(.2) or one half (0.5) credit arts/ECO elective
5. PHY 500.0 or CHE 500.0

Undergraduate Courses

Note: 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.

210.1(.2) University Physics I

Prerequisite: Nova Scotia Grade 12 physics or equivalent; MAT 190.1(.2) or MAT 210.1(.2) (may be taken concurrently).

This calculus-based physics course is intended primarily for physics majors and engineers. Topics include kinematics, Newton's laws of motion, conservation of energy and momentum, rotational dynamics, and Newton's law of gravitation. Emphasis is placed on problem solving skills.

Classes 3 hrs. and lab/tutorial 3 hrs./week. One semester.

Note: Credit cannot be given to students who have already taken PHY 205.0.

211.1(.2) University Physics II

Prerequisite: PHY 210.1(.2) and MAT 210.1(.2)/211.1(.2) (may be taken concurrently).

This calculus-based physics course is a continuation of PHY 210.1(.2), and covers the topics of oscillations and waves, thermodynamics, and electricity and magnetism.

Classes 3 hrs. and lab/tutorial 3 hrs./week. One semester.

Note: Credit cannot be given to students who have already taken PHY 205.0.

235.1.(2) Physics for Life Sciences I

Prerequisite: Nova Scotia Grade 12 Math Pre-calculus and Nova Scotia Grade 11 physics.

This algebra-based physics course offers an introduction to the foundations of physics. The emphasis is on the understanding and application of equations of motion, Newton's Laws, the nature of forces, and the extension to fluids. These ideas are applied to "real world" situations, including biological systems.

Classes 3 hrs. and lab/tutorial 3 hrs./week. One semester.

Note: Credit cannot be given to students who have already taken PHY 230.0.

236.1.(2) Physics for Life Sciences II

Prerequisite: PHY 235.1.(2).

This algebra-based physics course builds on the foundation of PHY 236.1.(2), and considers specific applications, such as thermodynamics, waves and sound, light and optics, electricity and magnetism, atomic physics and radioactivity. These ideas are applied to "real world" situations, including biological systems.

Classes 3 hrs. and lab/tutorial 3 hrs./week. One semester.

Note: Credit cannot be given to students who have already taken PHY 230.0.

Note: Grade of at least A in these courses, combined with credit for MAT 210.1.(2) and 211.1.(2), is accepted as a prerequisite for advanced courses in physics.

305.1.(2) Newtonian Mechanics

Prerequisite: PHY 211.1.(2), MAT 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.

306.1.(2) Waves and Optics

Prerequisite: PHY 211.1.(2) and MAT 211.1.(2).

An 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 and lab 3 hrs. a week. 1 semester.

326.1.(2) Introduction to Modern Physics

Prerequisite: PHY 305.1.(2).

The Special Theory of Relativity and early ideas in Quantum Mechanics are introduced. Topics in relativity include observed departures from Newtonian theory, Lorentz transformations, space and time dilation, the "Twin Paradox", as well as some elementary ideas in relativistic dynamics. Topics in Quantum Mechanics include the quantum theory of light, the Bohr model of the atom, the wave nature of particles and the Schrödinger equation is applied to one-dimensional problems.

335.1.(2) Introductory Mathematical Methods for Physicists

Prerequisite: PHY 211.1.(2) and MAT 211.1.(2).

This course introduces the student to basic mathematical techniques in Physics. Topics include Taylor and binomial expansions, vector calculus, linear algebra, and eigensystems. An introduction to Unix, elementary computer graphics, and the departmental computing system is also given. Classes 3 hrs. a week and tutorial 1.5 hrs. a week. 1 semester.

Note: Credit cannot be given to students who have already take MAT 301.1.(2) and/or MAT 321.1.(2).

355.1.(2) Electricity and Magnetism

Prerequisite: PHY 211.1.(2) and MAT 211.1.(2) and PHY 335.1.(2) (may be taken concurrently).

Students are 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 and lab 3 hrs. a week. 1 semester.

405.1.(2) Classical Mechanics

Prerequisite: PHY 305.1.(2), MAT 311.1.(2), and PHY 335.1.(2).

This course introduces the generalized Lagrangian and Hamiltonian formulations of dynamics and applies them to studies of central force problems, rigid bodies in three dimensions, the motion of tops and the effect of constraints.

417.1.(2) Thermal Physics

Prerequisite: PHY 335.1.(2) and 326.1.(2).

A study of thermodynamics and the underlying foundation of the study of large systems - statistical mechanics. Both classical and quantum mechanical systems are considered.

Credit cannot be given for students who have already a credit for PHY 416.1.(2).

435.1.(2) Mathematical Methods in Physics I

Prerequisite: PHY 305.1.(2), PHY 335.1.(2), PHY 355.1.(2), MAT 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.

436.1.(2) Mathematical Methods in 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.

437.1.(2) Computational Methods in Physics

Prerequisite: PHY 326.1.(2) and 405.1.(2) and either PHY 435.1.(2) or MAT 405.1.(2).

The use of the computer as a tool to solve "real" physics problems is inescapable. An introduction to Unix, FORTRAN, and C is given. Projects drawn from all areas of physics are assigned that require the student to obtain numerical solutions to algebraically intangible problems. Specific topics may include sparse linear systems, spline-fitting, Romberg integration, random numbers, root-finding, fast Fourier Transforms, data-modelling, integrating, and solutions to partial differential equations.

445.1(2) Advanced Laboratory I

Prerequisite: PHY 305.1(.2) and MAT 311.1(.2)

Laboratory experience in advanced topics of physics and/or astrophysics. Students will be responsible for assembling, performing and documenting the experiments. NOTE: While this is a half credit course, it will be taught over two semesters.

Lab 3 hrs. a week. 2 semesters.

446.1(2) Advanced Laboratory II

Prerequisite: PHY 445.1(.2).

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. NOTE: While this is a half credit course, it will be taught over two semesters.

Lab 3 hrs. a week. 2 semesters.

457.1(2) Electrodynamics

Prerequisite: PHY 355.1(.2) and 435.1(.2).

This advanced course looks at how Maxwell's equations led to a unification of electric and magnetic forces, in turn leading to an understanding of the generation and propagation of electromagnetic waves. Topics include the propagation of electromagnetic waves in free-space and in materials, the inhomogeneous wave equations, radiation from moving charges, dispersion, and scattering.

Note: Credit cannot be given for this course if student already has credit for PHY 456.1(.2).

465.1(2) Quantum Mechanics I

Prerequisite: PHY 326.1(.2), 405.1(.2), and either PHY 435.1(.2) or MAT 405.1(.2).

This course builds on the foundation set in PHY 326.1(.2). Topics include the one-dimensional Schrödinger equation with harmonic oscillator and finite square well potentials, expectation values, the algebraic formalism for Quantum Mechanics, the three-dimensional Schrödinger equation and single-electron atoms, identical particles, multi-electron atoms, and systems of many particles.

466.1(2) Quantum Mechanics II

PHY 465.1(.2), and either PHY 435.1(.2) or MAT 406.1(.2)/457.1(.2) which may be taken concurrently.

This course is a continuation of PHY 465.1(.2), and covers topics such as time-independent perturbation theory, the variation principle, the Werner-Kremer-Boltzmann (WKB) approximation, time-dependent perturbation theory, the adiabatic approximation, and scattering.

467.1(2) Quantum Mechanics III

Prerequisite: PHY 466.1(.2).

This advanced course in Quantum Mechanics covers a selection of topics that may include scattering, lasers, relativistic quantum dynamics (Dirac theory), second quantization, and field theory.

472.1(2) Fluid Dynamics

Prerequisite: PHY 335.1(.2) and 405.1(.2), and 436.1(.2).

This course introduces students to the fundamentals of fluid dynamics. Topics include the compressibility of fluids, mass conservation, the Navier-Stokes equations, Reynolds number, vorticity, and viscosity. Some specialized numerical techniques for solving complex problems in fluid dynamics are also discussed.

473.1(2) General Relativity

Prerequisite: PHY 405.1(.2)

An advanced course introducing Einstein's theory of general relativity and the curvature of space-time. Topics shall include manifolds, Riemannian geometry, Einstein's equations, and applications to cosmology and black holes.

474.1(2) Subatomic Physics

Prerequisite: PHY 465.1(.2).

An introduction to modern nuclear and particle physics. Topics may include the nucleon-nucleon interaction, the deuteron, the nuclear shell model, dynamical probes of nuclei (electron, photon, and hadron scattering), the structure of nucleons and mesons, electroweak interactions, and the implications of quantum field theory

500.0 Research Thesis

Prerequisite: honors standing.

Research project carried out by the student under the supervision of a member in 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 3 hrs. a week. 2 semesters.

Atlantic Canada Studies (ACS)

Committee on Atlantic Canada Studies

M. Harry, Coordinator	English
G. Barrett	Sociology
C. Byrne	English
J. Chamard	Management
T. Charles	Finance and Management Science
L. Christiansen-Ruffman	Sociology
D. Cone	Biology
R. Cospér	Sociology
K. Flikeid	French
J. Hill	English
C. Howell	History
R. Hulan	English
M. MacDonald	Economics
R. McCalla	Geography
H. McGee	Anthropology
H. Millward	Geography
J. Morrison	History
D. Naulls	Political Science
P. Ó Siadhail	Irish Studies
V. Owen	Geology
D. Perrier	Sociology
J. Reid	History
B. Robinson	Geography
A. Seaman	English
R. Twomey	History
M. Vance	History
M. VanderPlaat	Sociology
H. Veltmeyer	Sociology
T. Whalen	English
G. Nepean	graduate student representative
TBA	undergraduate student representative

P. Twohig Canada Research Chair in ACS

Atlantic Canada Studies is an interdisciplinary major, minor, concentration, 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, concentration, 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 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, concentration, and honors programs. Details concerning the Master of Arts in Atlantic Canada Studies degree are found in Section 3 of this *Calendar*.

Canada Research Chair in Atlantic Canada Studies

Dr. Peter L. Twohig holds the Canada Research Chair in Atlantic Canada Studies. He has an active program of research focusing on health in Atlantic Canada, and is particularly interested in interdisciplinary approaches to health care research and historical analyses of health and medicine. Undergraduate students interested in interview-based projects

are encouraged to contact Dr. Twohig or visit the Gorsebrook Centre for New Media Qualitative Research.

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 (8.0) credits from the courses listed below. At least four (4.0) of the eight (8.0) credits 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 (1.0) credit from each of three of Groups A, B, C, D and E.
2. The courses must include at least one (1.0) credit from each of three different academic disciplines. Interdisciplinary ACS courses do not count as a discipline for this purpose.
3. ACS 411.1(.2) and 412.1(.2) must be among the courses selected.
4. No more than three (3.0) credits may be selected from Group E.
5. 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 (4.0) credits chosen from the courses listed below and completed with a quality point average of at least 2.00. At least two (2.0) credits must be at the 300 level or above, and the courses selected must include ACS 411.1(.2) and 412.1(.2). The courses must also include one (1.0) credit from each of three different academic disciplines, and no more than two (2.0) credits 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 (10.0) credits from the courses listed below. At least eight (8.0) of the ten (10.0) credits 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 (1.0) credit from each of four of Groups A, B, C, D, and E.
2. The courses must include at least one (1.0) credit from each of three different academic disciplines. Interdisciplinary ACS courses do not count as a discipline for this purpose.
3. Either ACS 500.0 or ACS 511.1(.2) and 512.1(.2) must be among the courses selected.
4. No more than three (3.0) credits may be selected from Group E.
5. It is the responsibility of the student to ensure that all prerequisites have been fulfilled for the courses chosen.

Concentrations

A concentration in Atlantic Canada Studies consists of four (4.0) credits chosen from the courses below and completed with a quality point average of at least 2.00 (C). At least three (3.0) credits must be at the 300 level or above, and the courses selected must include:

- a) one of ACS 311.1(2) and ACS 312.1(2);
- b) one of ACS 411.1(2) and ACS 412.1(2); and
- c) at least one half (.5) credit chosen from the other courses in Group A.

The remaining two and a half (2.5) credits must include courses from at least two separate disciplines chosen from the courses listed in Groups B, C, D, and E, and must also include courses from at least two of these groups.

Group A: Interdisciplinary Courses in Atlantic Canada Studies

ACS 301.1(.2); ACS 302.1(.2); ACS 303.1(.2); ACS 305.1(.2); ACS 310.0; ACS 311.1(.2); ACS 312.1(.2)/313.1(.2); ACS 321.1(.2); ACS 401.1(.2) to 405.1(.2); ACS 411.1(.2)/412.1(.2); ACS 500.0; ACS 511.1(.2)/512.1(.2).

Group B: Culture and History

ANT 323.1(.2)/324.1(.2); ANT 466.1(.2); EGL 312.1(.2); EGL 380.0; FRE 305.1(.2); FRE 405.1(.2); HIS 320.0; HIS 340.0; HIS 346.1(.2); HIS 373.1(.2); HIS 535.0; HIS 560.0; IRS 203.1(.2); IRS 204.1(.2); IRS 307.0; LIN 305.1(.2); LIN 312.1(.2).

Group C: Social and Political Economy

ECO 324.1(.2); ECO 325.1(.2); ECO 361.1(.2); POL 307.0; SOC 320.0; SOC 327.0; SOC 332.0; SOC 420.0; SOC 453.0; SOC 468.1(.2); WMS 320.0; WMS 468.1(.2).

Group D: Ecology and Environment

ECO 361.1(.2); ENV 440.1(.2); GEO 202.1(.2); GEO 203.1(.2); GEO 208.1(.2); GPY 304.1(.2); GPY 340.1(.2); GPY 454.1(.2); SOC 310.1(.2).

Group E: Cognate Courses

ANT 316.1(.2); ANT 317.1(.2); ANT 329.1(.2); ANT 371.1(.2); ANT 372.1(.2); ANT 395.1(.2); ANT 413.1(.2); ANT 463.1(.2); BIO 203.0; BIO 324.1(.2); BIO 331.1(.2); ECO 306.1(.2); ECO 310.1(.2); ECO 315.1(.2); ECO 322.1(.2); ECO 349.1(.2); ECO 363.1(.2); ECO 366.1(.2); ECO 406.1(.2); ECO 430.1(.2); EGL 329.0; EGL 343.1(.2); EGL 375.1(.2); EGL 376.1(.2); EGL 432.0; EGL 437.1(.2); EGL 463.1(.2); EGL 471.1(.2); EGL 472.1(.2); EGL 475.0; FRE 312.1(.2); FRE 412.1(.2); FRE 434.1(.2); FRE 440.1(.2); FRE 451.1(.2); FRE 452.1(.2); GPY 300.0; GPY 311.1(.2); GPY 331.1(.2); GPY 339.0; GPY 364.1(.2); GPY 449.1(.2); HIS 252.1(.2); HIS 253.1(.2); HIS 319.0; HIS 327.1(.2); HIS 332.0; HIS 333.0; HIS 361.1(.2); HIS 362.1(.2); HIS 365.0; HIS 393.0; HIS 403.1(.2); HIS 513.0; HIS 525.0; IRS 308.0; IRS 327.1(.2); IRS 328.1(.2); IRS 400.0; IRS 525.0; LIN 395.1(.2); LIN 440.1(.2); POL 240.1(.2); POL 304.0; POL 310.0; POL 315.0; POL 317.0; POL 320.0; POL 330.0; POL 440.0; POL 447.1(.2); POL 450.1(.2); POL 455.0; POL 551.0; PSY 418.1(.2); REL 347.1(.2); REL 355.1(.2); REL 360.0; REL 455.1(.2); REL 460.0; SOC 306.0; SOC 321.0; SOC 333.0; SOC 340.0; SOC 391.0; SOC 405.0; SOC 425.0; SOC 448.0; SOC 480.0; SOC 481.0; WMS 349.1(.2); WMS 434.1(.2); WMS 448.0; WMS 481.0.

Note: While the same course description is applied to one-semester courses ACS 301.1(.2) and 302.1(.2) each course is in fact self-contained in content and entirely different each time it is offered.

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

This course will examine the role of higher education institutions in Atlantic Canada, from historical and contemporary perspectives, and will thus encourage informed assessment of the needs and responsibilities of higher education in the region.

305.1(.2) Moving Images of Atlantic Canada

This course examines the evolution of film and television in the Atlantic region in the 20th century. Various genres and technologies will be studied, including critical examination of productions by the National Film Board, by the Canadian Broadcasting Corporation, by private television, by independent film-makers, by producers from "away", and by non-commercial film/video makers. The course will consider the extent to which distinctive ways of making moving images were or were not developed in Atlantic Canada, and the manner in which moving images have reflected, distorted, or shaped the culture of the Region.

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.

311.1(.2) The Culture of Atlantic Canada I

Prerequisite: a minimum of four (4.0) university credits.

This course provides an introduction to the cultural traditions and institutions of the various regions and ethnic groups of each of the three Maritime Provinces and Newfoundland and Labrador. Lectures will cover a wide variety of architectural, artistic, ecclesiastical, educational, ethnic, linguistic, media, and policy topics. Students will engage in both individual and group projects.

312.1(.2) The Culture of Atlantic Canada II

Prerequisite: ACS 311.1(.2).

This course will continue the work of ACS 311.1(.2), usually with a more focused approach to one or more of the topics or regions studied in ACS 311.1(.2).

313.1(.2) Researching Atlantic Canada

Prerequisite: a minimum of four (4.0) university credits.

There are many ways of interpreting the Atlantic Canadian experience. Individual disciplines (such as history, sociology, anthropology, economics, biology) take different approaches, utilize different data, and present their research in different ways. All research, however, must be read with a critical eye. This course will expose students to a variety of ways of analyzing Atlantic Canada, focusing largely on qualitative research approaches and the human experience in the region.

321.1(.2) African Nova Scotian Culture

This course provides a basic understanding of African Nova Scotian culture. It introduces students to the history and cultural heritage of African Nova Scotian communities, their experience of life today, and the various forms of artistic expression produced by the culture. It also offers insight into the problems and concerns of African Nova Scotian communities and their historical and cultural connections with the Black Diaspora.

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.

411.1(2) Atlantic Canada Seminar I

Prerequisite: a minimum of five (5.0) university credits.

This course will provide an opportunity for students to integrate their knowledge of Atlantic Canada 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.

412.1(2) Atlantic Canada Seminar II

Prerequisite: ACS 411.1(2)

This course will continue the work of ACS 411.1(2). In addition, 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.

500.0; 511.1(2) - 512.1(2) Honors Seminar

Prerequisite: enrolment in ACS honors program.

These courses 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: enrolment 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: enrolment 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: enrolment 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: enrolment 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 enrol in HIS 560.0.

Seminar 3 hrs. a week. 2 semesters.

690.0 Thesis Research

Prerequisite: enrolment in the Master of Arts in ACS or permission of ACS Coordinator.

Students will engage in the research and writing of a thesis under supervision of a thesis committee. The student must satisfy the supervisor 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. Students will publicly defend their thesis, following which a final grade will be determined by the thesis committee.

Biology (BIO)

Chairperson,	Z. Dong
Associate Professor	D. Cone, T. Rand, D. Richardson,
Professors	D. Strongman
Associate Professors	G. Sun, M. White
Assistant Professors	C. Barber, S. Bjornson, H. Broders,
	J. Lundholm, R. Russell
Adjunct Professors	M. Agbeti, G. Anderson, R. Cusack,
	F. Jonsyn-Ellis, B. Pardy
	N. Ross, L. Vasseur
Professor Emeriti	B. Kapoor, A. Rojo

The Biology Department offers programs to fulfil the requirements of the following degrees:

1. general degree of Bachelor of Science with a concentration in biology,
2. degree of Bachelor of Science with a major in biology,
3. degree of Bachelor of Science with an honors in biology, and
4. a double major or honors in biology and another science subject.

Students completing a general degree in biology should be capable of teaching or doing technical work in biological research, health sciences and environmentally-related fields after appropriate on-job training. Students finishing a major or honors degree in biology are qualified to further their education at graduate and professional schools.

In addition to these traditional programs, the Department offers a Co-operative Education program in Biology (COEB). Students interested in the Co-op program should consult the Co-operative Education Office for details.

A Diploma in Forensic Sciences is also offered by the Department of Biology. FOR courses, however, cannot be counted towards the requirements for a major or honors in BIO. Details are found above in the Faculty of Science portion of Section 3.

Students should consult the Science Faculty regulations outlined in Section 3 of this *Calendar*.

Major in Biology

- (1) BIO 201.1(.2) and 202.1(.2)
- (2) At least three (3.0) credits from these core courses:
BIO 303.1(.2) Plant Biology
BIO 307.1(.2) Genetics
BIO 308.1(.2) Biostatistics
BIO 321.1(.2) Cell Biology
BIO 322.1(.2) Physiology I
BIO 324.1(.2) Ecology
BIO 326.1(.2) Non-vertebrates
BIO 327.1(.2) Anat/Morph-vertebrates
BIO 329.1(.2) Systematics
BIO 398.1(.2) Intro to Microbiology
- (3) at least two (2.0) credits at the 400-level.
- (4) one (1.0) to two (2.0) credits of BIO electives.

Concentration in Biology:

Requirements (1) and (2) and one (1.0) credit at the 400-level are required for the BIO concentration.

Double Majors:

Requirements (1) to (3) are necessary to fulfil the requirements for the BIO major. For details on the necessary courses for the second major, see the appropriate departmental section.

Minor in Biology:

Requirements (1) and (2) and one (1.0) credit at the 400-level are required for the BIO minor. For details on the requirements for the major subject, see the appropriate departmental section.

Honours in Biology:

- (1) BIO 201.1(.2) and 202.1(.2)
- (2) BIO 308.1(.2) and at least two and one half (2.5) credits from the core courses above.
- (3) three (3.0) credits at the 400-level.
- (4) one (1.0) to three (3.0) credits of BIO electives.
- (5) BIO 549.0 (Honors Seminar).
- (6) BIO 500.0 (Honors Thesis)

The signed, final copies of the thesis must be submitted to the library for binding and a copy of the receipt provided to the chairperson before a grade for this course will be submitted. **Failure to do so could delay the student's graduation.** The guidelines for thesis preparation can be obtained at the library information desk.

NOTE: It is the student's responsibility to secure a supervisor for the thesis course prior to enrolling in the honors program. It is highly recommended that prospective honors students consult with the Departmental Chair the year preceding the academic year they plan to do an honors program.

Double Honors:

For details on the necessary courses for the second honors, see the appropriate departmental section. Students **MUST** consult the Chairs of both departments **PRIOR** to making an application for a double honors degree.

One (1.0) credit from the following courses may be substituted for one (1.0) biology credit required for a Bachelor of Science degree in biology (e.g., Faculty of Science regulation 6d): ANT 471.1(.2), ANT 472.1(.2), CHE 451.1(.2), CHE 452.1(.2), GEO 320.1(.2), GEO 321.1(.2), GEO 335.1(.2), PSY 407.1(.2), and PSY 408.1(.2). This credit cannot be used to fulfil both the biology requirement *and* the other requirements for a Bachelor of Science degree (e.g., regulation 6e).

Courses offered by the Department of Biology fall into three themes (Molecular, Organismal and Ecological) and students may opt for a course selection which enables specialization in one of the themes or exposure to one or more themes. The courses are listed below with respect to the themes.

Molecular: BIO 307.1(.2), 321.1(.2), 329.1(.2), 402.1(.2), 408.1(.2), 414.1(.2), 417.1(.2), 418.1(.2), 419.1(.2), 420.1(.2), 423.1(.2).

Organismal: BIO 303.1(.2), 307.1(.2), 322.1(.2), 323.1(.2), 325.1(.2), 326.1(.2), 327.1(.2), 328.1(.2), 329.1(.2), 398.1(.2), 399.1(.2), 402.1(.2), 404.1(.2), 408.1(.2), 411.1(.2), 416.1(.2), 418.1(.2), 421.1(.2), 423.1(.2), 424.1(.2), 426.1(.2), 427.1(.2), 429.1(.2), 430.1(.2).

Ecological: BIO 307.1(.2), 308.1(.2), 324.1(.2), 329.1(.2), 331.1(.2), 398.1(.2), 404.1(.2), 412.1(.2), 414.1(.2), 416.1(.2), 422.1(.2), 423.1(.2), 425.1(.2), 428.1(.2), 430.1(.2), 447.1(.2), 448.1(.2), 449.1(.2), 450.1(.2).

All of the following courses have a 3 hour per week lab component unless otherwise noted. Students must pass both the laboratory and the lecture components of a course to pass the course.

201.1(.2) Molecular and Cell Biology

Prerequisite: Nova Scotia Grade 12 BIO 441 or equivalent.

An introductory study of the principles and organization of life including molecular, cell biology and heredity.

202.1(.2) Organismal and Ecological Biology

Prerequisite: Nova Scotia Grade 12 BIO 441 or equivalent.

An introductory study of the principles and organization of life including anatomy, form and function, physiology, life history and ecology.

203.0 Biology and the Human Environment (for non-science students)

In September, this course became an ENV course.

303.1(.2) Plant Biology

Prerequisite: BIO 201.1(.2) and 202.1(.2).

An introduction to the study of vascular plants, including plant structure, function, life history, adaptation, and evolution.

307.1(.2) Genetics

Prerequisite: BIO 201.1(.2).

Principles and history of heredity. Gene interactions, association of genes on eukaryotic chromosomes. Autosomal and sex-linked genetic inheritance and sex determination. Statistical test of genetic hypotheses. Laboratory study includes genetic experiments and problem solving.

308.1(.2) Biostatistics

Prerequisite: BIO 202.1(.2), MAT 210.1(.2) or CSC 226.1(.2).

Introduction to the methods of analyzing quantitative data in the biological sciences. The emphasis will be on practical applications of statistics in biology and its graphical presentation. Descriptive statistics, distributions, regression, correlation, analysis of variance, and sampling methods will be covered. This course is recommended for biology majors.

321.1(.2) Cell Biology I

Prerequisite: BIO 201.1(.2).

An introduction to the eukaryotic cell with emphasis on the chemical and genetic basis of cellular activities and the division of the cell into membrane-bound and biochemically specialized compartments. The plasma membrane, cytosol, nucleus, cytoskeleton, Golgi apparatus, mitochondrion, chloroplasts and endoplasmic reticulum will be considered.

322.1(.2) General Physiology I

Prerequisite: BIO 201.1(.2) and 202.1(.2).

An introduction to the essentials of vertebrate cellular physiology. Topics discussed will include metabolism, the nervous and endocrine systems, and muscles.

323.1(.2) General Physiology II

Prerequisite: BIO 322.1(.2).

An introduction to the essential physiology of vertebrates including blood, circulation, respiration, water-electrolyte regulation and digestion.

324.1(.2) Ecology

Prerequisite: BIO 202.1(.2).

A study of modern ecology including energy flow, biogeochemical cycles, population biology and community structure. Field trips are an important part of the laboratory component.

325.1(.2) Biology of Protists

Prerequisite: BIO 201.1(.2) and 202.1(.2).

An introduction to the protistan Phyla (protozoa and algae): protist morphology and diversity; physiology and reproduction; ecology and applied aspects; evolution and the origins of multicellularity.

326.1(.2) Diversity of Non-vertebrate Animals

Prerequisite: BIO 201.1(.2) and 202.1(.2).

A study of free-living, non-vertebrate animals including the radiates, acoelomates, pseudocoelomates, crustaceans, arthropods and echinoderms. The laboratory exercises provide the student with the opportunity to experiment with certain living animals and to dissect and examine a variety of preserved specimens.

327.1(.2) Anatomy and Functional Morphology of Vertebrates

Prerequisite: BIO 202.1(.2).

The study of vertebrates, with consideration of structural modifications for particular life styles. Laboratory instruction involves dissection of representative animals.

328.1(.2) Plant Taxonomy and Identification

329.1(.2) Principles of Systematics

Prerequisite: BIO 201.1(.2) and 202.1(.2).

This course examines the fundamentals of animal and plant systematics including rules of nomenclature, the basis of classification, and the theory of phylogenetics.

331.1(.2) Population and Ecosystem Health

398.1(.2) Introduction to Microbiology

Prerequisite: BIO 202.1(.2).

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.

399.1(.2) Biology of Lower Plants

Prerequisite: BIO 202.1(.2).

An introduction to the thalloid and leafy non-vascular plants including mat and colony forming cyanobacteria, macro-seaweeds, stoneworts, liverworts, hornworts, mosses and lichens. The ecology of these plants, and their uses especially for environmental monitoring will be discussed as will their life cycles and structure. This course, together with BIO 325 and BIO 328 forms a suite of courses of value to biology students interested in ecology as well as those majoring in geography and environmental studies.

402.1.(2) Population Genetics

Prerequisite: BIO 307.1.(2).

The measurement of gene frequencies in a population and the factors which affect these frequencies (including mutation, genetic drift, migration, and natural selection) will be considered conceptually and mathematically.

404.1.(2) Behavioral Ecology

Prerequisite: BIO 324.1.(2)

Study of animals and how they interact in their environment with emphasis on the adaptive value of behavior. Students will conduct independent research in labs.

408.1.(2) Vertebrate Embryology

Prerequisite: BIO 321.1.(2) and BIO 322.1.(2).

Early developmental processes involved in the transformation of the fertilized egg into a new individual.

410.1.(2) Plant Diversity and Ecology

Prerequisite: BIO 303.1.(2) and 324.1.(2).

This is a hands-on course on the identification and ecology of plants in the important vegetation types of Nova Scotia. In the first half of the course, students will learn plant-sampling techniques during field trips to various natural habitats around Halifax. The second half will involve the preparation and identification of plant specimens and ecological comparisons between habitat types. Students will also learn conservation biology and applied ecology of key habitat types. This course will provide valuable preparation for employment in natural resource management, ecological restoration or research.

411.1.(2) Animal Parasitology I

Prerequisite: BIO 325.1.(2) and BIO 326.1.(2).

The relationship between parasites and their hosts, emphasizing the taxonomy and life history of protists and helminths of vertebrates including man. Laboratory work is on living and prepared materials, maintenance of life cycles and infectivity to vertebrates.

412.1.(2) Animal Parasitology II

Prerequisite: BIO 411.1.(2).

This course is concerned with the ecological significance of animal parasites. Topics include host behaviour, fitness, and population biology, the development of parasite communities, and the importance of zoonotic and epidemic diseases.

414.1.(2) Environmental Microbiology

Prerequisite: BIO 398.1.(2).

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).

416.1.(2) Mycology I

Prerequisite: BIO 324.1.(2) and BIO 398.1.(2).

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.

417.1.(2) Mycology II

Prerequisite: BIO 416.1.(2).

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.

418.1.(2) Plant Physiology

Prerequisite: BIO 303.1.(2) and BIO 321.1.(2).

The physiology of higher plants. Topics include photosynthesis, water and resource allocation, transpiration, photohormones, differential growth, photomorphogenesis, photoperiodism, and flowering.

419.1.(2) Molecular Biology

Prerequisite: BIO 307.1; BIO 398.1.(2), and CHE 344.1.(2).

Chemistry of genes and history of molecular biology. Structure of DNA, RNA, and proteins. Transcription, translation, and replication of DNA and RNA. Organization of genes and genomes. Laboratory study of DNA preparation and analysis, and gene isolation.

420.1.(2) Cell Biology II

Prerequisite: BIO 321.1.(2).

An investigation of specific functions of the eukaryotic cell, particularly those that are important in multicellular organisms. Topics include cell division, cell signaling, neurons, cells of the immune system, the extracellular matrix, cellular differentiation and cancer.

421.1.(2) Biology of Domesticated Plants**422.1.(2) Applied Ecology**

Prerequisite: BIO 308.1.(2) and 324.1.(2).

This course introduces how ecological principles can be applied to human exploitation of natural resources. Topics include timber and fish management, pest control, effects of pollution on ecosystems, and landscape ecology. The laboratory component exposes students to methods used in applied ecology.

423.1.(2) Evolution

Prerequisite: BIO 307.0.

The Darwinian natural selection hypothesis. History of biological evolution from the 16th century. The modern synthesis of genetics and natural selection. Laboratory data analysis and problem solving.

424.1.(2) Life History of Fishes

Prerequisite: BIO 329.1.(2).

The study of fishes, their classification, life history and global distribution. The laboratory portion of the course familiarizes the students with representatives of world taxa and the fishes of Nova Scotia.

425.1.(2) Ecology of Fishes

Prerequisite: BIO 324.1.(2).

Growth and development, population biology, the role of fishes in aquatic communities, and the influence of human activities on fish, are studied.

426.1(2) Animal Tissues

Prerequisite: BIO 321.1(2) and BIO 322.1(2).

An introduction to the structure and function of animal tissues. Laboratory work will involve the interpretation of histological preparations of representative vertebrate tissues.

427.1(2) Introductory Entomology

Prerequisite: BIO 326.1(2) and BIO 329.1(2).

An introduction to the fascinating world of insects. The anatomy, physiology and taxonomy of this group will be examined. Lab work will include field trips for collection of insects and exposure to methods for preservation and presentation of insect collections.

428.1(2) Applied Entomology

Prerequisite: BIO 427.1(2).

Insect ecology and the relationship of insects to humans. Topics covered will include: insect biodiversity, morphological and behavioral modifications for specific ecological roles and the impact of insects on human activities.

429.1(2) Quaternary Palynology and the History of Vegetation [GEO 429.1(2)]

Prerequisite: BIO 303.1(2) and GPY 203.1(2) and 213.1(2).

The study of pollen grains from peat deposits, lake sediments and moss polsters etc. enables the reconstruction of past vegetation and climates. This course will cover the techniques for pollen extraction, the identification of plants from their pollen and the reconstruction of plant communities from the discovered pollen. This will be related to climate change in the past. This course will be of special value to ecologists, geographers and also to entomologists (especially beekeepers), archaeologists, forensic medicine and environmental studies students.

430.1(2) Ornithology

Prerequisite: BIO 324.1(2).

Introduction to bird biology that covers morphology, classification, life history, and behavior. Labs provide hands-on experience and complement lectures.

431.1(2) Herpetology

Prerequisite: BIO 324.1(2)

Herpetology is the study of amphibians and reptiles. Topics include classification, anatomy, physiology, ecology, and evolutionary relationships of amphibians and reptiles with emphasis on Nova Scotia herpetofauna.

Note: Attendance at field trips during the second and third weeks of August is mandatory. Contact the instructor for details.

432.1(2) Medical and Veterinary Entomology

Prerequisite: BIO 427.1(2).

This course presents an introduction to the biology of insects and arthropods that cause disease in humans and domestic animals. Topics include the biology and behaviour of disease vectors and external parasites, the role of vectors in the transmission of disease organisms, life cycles of vectorborne pathogens, and the mechanisms of vector and disease control.

433.1(2) Ecotoxicology

Prerequisite: BIO 324.1(2) and CHE 212.1(2).

Ecotoxicology is the study of anthropogenic contaminants in the natural environment. This course will provide an introduction to the study of the fate and effects of toxic chemicals on the structure and function of ecological systems.

Laboratories will consist of practical sessions, discussions and debates and field trips.

Classes 3 hrs. a week. Lab 3 hrs. a week.

447.1(2) Aquatic Biology in Bermuda**448.1(2) Biology Field Course**

Prerequisite: BIO 308.1(2), BIO 324.1(2), and permission of instructor.

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 lecture and field work in Nova Scotia during a summer session.

Note: Enrolment in this course is limited.

449.1(2) Aquatic Parasitology

Prerequisite: BIO 411.1(2) and BIO 412.1(2). Students interested in taking this course must obtain a letter of permission signed by the Dean of Science prior to enrolling in the course.

A two-week, field course held in the summer at the Huntsman Marine Science Centre in St. Andrews, New Brunswick. Both marine and freshwater invertebrates and vertebrates are examined for their parasite fauna. Selected protozoan as well as metazoan parasites are examined live prior to appropriate processing for identification. Students will learn to recognize common parasitic Protozoa, Turbellaria, Monogenea, Digenea, Cestoda, Nematoda, and Crustacea found in the aquatic hosts as well as to understand their ecology and host/parasite relationships.

Classes 36 hrs., including lectures, labs, and fieldwork during a summer session.

450.1(2) Diversity in Forest Ecosystems

Prerequisite: BIO 308.1(2), BIO 324.1(2), and prior written permission of instructor.

This course introduces students to field research in forest ecosystems of Nova Scotia. This field course covers issues such as the need to protect natural ecosystems, the effects of management practices on all components of the ecosystem and the evaluation of biodiversity. The students will use field techniques such as capture - recapture, soil analysis and vegetation survey to evaluate diversity and measure species responses to environmental changes. This course will give the students a unique opportunity to work in collaboration with wildlife and forest managers. The field work will be conducted outside Halifax, in protected and managed forest ecosystems of Nova Scotia.

Classes 36 hrs., including lectures, labs, and fieldwork conducted outside Halifax.

490.1(2) - 499.1(2) Directed Study in Biology

Prerequisite: Permission of instructor on a directed studies form available from the Chairperson of Biology.

These courses are intended to supplement the course offerings in biology and allow students to delve deeper into a subject of particular interest to them. Students must show some initiative and be willing to work independently.

500.0 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.

549.0 Honors Seminar

Prerequisite: honors standing.

Seminars followed by discussions based on recent advances in biology. In consultation with the honors advisor, the honors students will select and prepare the topics for presentation to biology faculty and students.

Forensic Sciences

Co-ordinator D. Strongman

This diploma program is housed in the Department of Biology with courses being developed for distance education through web-based offerings. Consult the undergraduate Faculty of Science portion of Section 3 of this *Academic Calendar* for details concerning requirements for admission, the program itself, and graduation. Information can also be obtained from the Program Coordinator.

Because of the significant interest in the Forensic Sciences, the number of qualified students admitted to the Program may have to be limited.

The following courses are reserved exclusively for students officially accepted in the Diploma in Forensic Sciences Program at Saint Mary's. Courses in Forensic Science cannot be used to satisfy course requirements for the major or honors in Biology.

All the following courses have 3 hrs. classes and 3 hrs. lab/tutorial per week.

FOR 200.1(2) Basic Sciences for Forensics I

Prerequisite: official acceptance in Diploma in Forensic Sciences Program.

This course will provide students with an introduction to the biology and chemistry that forms the basic scientific background applicable to the study of forensic science. Topics covered will include basic cell biology and genetics, anatomy, physiology, embryological development of humans, organic, and analytical chemistry.

FOR 201.1(2) Basic Sciences for Forensics II

Prerequisite: FOR 200.1(2).

This course is a continuation of Basic Sciences for Forensics I and will cover such topics as principles of physics, entomology, microbiology, psychology, and anthropology relevant to forensics.

FOR 300.1(2) Application of Forensic Techniques

Prerequisite: FOR 200.1(2) and 201.1(2).

This course will provide students with an introduction to the procedures for conducting a forensic investigation. Students will learn how to retrieve and document potential evidence, identify victims and suspects. Topics such as fingerprinting, forensic odontology and entomology, bloodstain pattern analysis, DNA collection, toxicology, and non-biological trace evidence collection will be included.

Chemistry (CHE)

Chairperson, Professor	R. Singer
Professors	C. Elson, K. Vaughan
Associate Professors	M. Lamoureux, A. Piorko
Assistant Professors	H. Jenkins, C. Pye, K. Singfield
Adjunct Professors	D. Gamble, W. Jones
Professors Emeriti	J. Murphy, J. Young

The program of the Department of Chemistry is designed to satisfy two functions:

- Fulfil 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).

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.

- Introduce students in other disciplines to the ideas of chemistry and provide them with the chemical skills necessary for their professional development.

All members of staff are engaged in active research projects, and undergraduates are expected and encouraged to contribute to these projects. Research jobs, both during the term and in the summer, are also available for undergraduates.

The core program for a major in chemistry consists of CHE 210.1(.2) and one of CHE 211.1(.2), 212.1(.2) or 213.1(.2); and CHE 312.1(.2), 313.1(.2), 322.1(.2), 324.1(.2), 332.1(.2), 333.1(.2), 344.1(.2), 345.1(.2); and CHE 451.1(.2) or 452.1(.2); and any one and one half (1.5) 400 level credit in Chemistry. Students may take up to two (2.0) additional chemistry courses of their choice and CHE 498.0 is recommended as one of such courses. Students are required to take a half credit (0.5) in Mathematics, Computer Science, or Statistics, above the compulsory MAT 210.1(.2)/211.1(.2) credits. Major students are also required to complete PHY 210.1(.2) and 211.1(.2) and these courses should normally be taken in Year 1.

The core program for an honors degree in chemistry consists of CHE 210.1(.2) and one of CHE 211.1(.2), 212.1(.2), or 213.1(.2); and CHE 312.1(.2), 313.1(.2), 322.1(.2), 324.1(.2), 332.1(.2), 333.1(.2), 344.1(.2), 345.1(.2); and CHE 451.1(.2) or 452.1(.2); and CHE 412.1(.2), 498.0, 500.0, and one of CHE 421.1(.2) or 422.1(.2) or 445.1(.2); one of CHE 432.1(.2) or 433.1(.2); one of CHE 443.1(.2) or 444.1(.2). Students are required to take one half (0.5) course at the 400-level and up to two (2.0) additional chemistry courses of their choice. Honors students are also required to complete PHY 210.1(.2) and 211.1(.2) and these courses should normally be taken in Year 1, and MAT 310.1(.2) and 311.1(.2), which should normally be taken in Year 2.

The core program for double majors consists of: CHE 210.1(.2) and one of 211.1(.2), 212.1(.2) or 213.1(.2); three (3.0) of CHE 312.1(.2), 313.1(.2), 322.1(.2), 324.1(.2), 332.1(.2), 333.1(.2), 344.1(.2), 345.1(.2), 373.1(.2), 374.1(.2); and two (2.0) 400-level credits.

The core program for double honors consists of: CHE 210.1(.2) and one of 211.1(.2), 212.1(.2) or 213.1(.2); three (3.0) of CHE 312.1(.2), 313.1(.2), 322.1(.2), 324.1(.2), 332.1(.2), 333.1(.2), 344.1(.2), 345.1(.2); and two (2.0) 400 level credits. In addition, it is strongly recommended that students in both double majors and double honors complete MAT

210.1(.2)/211.1(.2) to fulfil the mathematics requirement, and PHY 210.1(.2) and 211.1(.2) as one of their science electives. Double honors students who choose to do a research thesis in chemistry will also take CHE 498.0 and 500.0. If they choose to do a research thesis in the other subject, they must take an additional (1.0) chemistry course.

Notes: (i) Students who fail the laboratory component of a course will fail the course.

(ii) All of the following courses have a 3 hour per week lab component unless otherwise noted, i.e., CHE 220.1(.2)/221.1(.2), 380.1(.2), and 498.0.

010.0 Introduction to Chemistry

The fundamental laws and principles of chemistry are explored and applied in the study of selected non-metals, metals and their compounds.

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) General Chemistry I

Prerequisite: The equivalent of Nova Scotia Chemistry 12 Academic or equivalent; and MAT 210.1(.2) or CSC 226.1(.2) which may be taken concurrently.

An introduction to general topics in chemistry including composition and properties of matter, reaction stoichiometry, chemical reactions, atomic structure, the periodic table, chemical bonding, molecular geometry and gases. The course is intended for students interested in the physical sciences, life sciences and for students in the engineering program.

Note: Students intending to enroll in CHE 211.1(.2) or CHE 213.1(.2) in the second semester are advised to take MAT 210.1(.2) and not CSC 226.1(.2).

Note: Credit is given for one of CHE 211.1(.2), CHE 212.1(.2), or CHE 213.1(.2).

211.1(.2) General Chemistry II for Physical Sciences

Prerequisite: CHE 210.1(.2) and MAT 210.1(.2)/211.1(.2) which may be taken concurrently.

A continuation of the introduction to general topics in chemistry including chemical equilibrium and applications to aqueous systems, physical equilibrium, thermodynamics, reaction kinetics, molecular structure, electrochemistry and organic chemistry. Emphasis is placed on applications to the physical sciences, including chemistry, geology and physics.

Note: This course is intended for students in the physical sciences.

212.1(.2) General Chemistry II for Life Sciences

Prerequisite: CHE 210.1(.2) and MAT 210.1(.2)/211.1(.2) or CSC 226.1(.2)/227.1(.2) which may be taken concurrently.

A continuation of the introduction to general topics in chemistry including chemical equilibrium and applications to aqueous systems, physical equilibrium, thermodynamics, reaction kinetics, molecular structure, electrochemistry and organic chemistry. Emphasis is placed on applications to the life sciences, including biology.

Note: This course is intended for students in the life sciences.

213.1(2) General Chemistry II for Engineering

Prerequisite: CHE 210.1(.2); and MAT 210.1(.2)/211.1(.2) which may be taken concurrently.

A continuation of the introduction to general topics in chemistry including chemical equilibrium and applications to aqueous systems, physical equilibrium, thermodynamics, reaction kinetics, molecular structure, electrochemistry and organic chemistry. Emphasis is placed on applications to the related field of engineering.

Note: This course is intended for students in the engineering programs.

220.1(2) Chemistry and Industry

This course is intended as an introduction to general chemistry for students who have little background in science and mathematics. The course focuses on commercially important industries and technologies and the role and importance of chemistry in these industries. Particular emphasis is placed on the role of chemistry in innovative technologies. Topics may include chemistry and the industrial world, or chemistry and material science, and/or chemistry and high technology.

Note: This course is for non-science students for whom it constitutes a science elective. Science students cannot use this course as a science elective.

Classes 3 hrs. a week. 1 semester.

221.1(2) Chemistry of Life

This course is intended as an introduction to general chemistry for students who have little background in science and mathematics. The course will focus on the role and importance of chemistry in today's world. Topics may include chemistry and the environment, chemistry and the medical sciences, or chemistry and material science.

Note: This course is for non-science students for whom it constitutes a science elective. Science students cannot use this course as a science elective.

Classes 3 hrs. a week. 1 semester.

312.1(2) Thermodynamics

Prerequisite: CHE 211.1(.2) or 212.1(.2) or 213.1(.2), and MAT 210.1(.2)/211.1(.2).

In this introduction to Physical Chemistry, a study of the underlying physical principles that govern the properties and behavior of chemical systems from a *macroscopic* viewpoint will be undertaken. Topics covered will include: Laws of Thermodynamics; Temperature; Work, Heat, Enthalpy; Entropy; Carnot Cycle; Free Energy, Colligative Properties of Solutions; Phase Equilibrium; Phase Diagrams of Pure Substances and Simple Mixtures; Chemical Potentials and Chemical Equilibrium.

313.1(2) Chemical Reaction Kinetics

Prerequisite: CHE 312.1(.2).

In this second course in Physical Chemistry, the focus will be on processes by which change occurs in chemical systems and the rates of these changes. The first part of the course examines molecular motion in gases and liquids and the mobility of ions in solution. In the second part, the focus will be on the branch of Physical Chemistry called Kinetics. The rates and mechanisms of simple and complex chemical reactions will be examined, including polymerization and reactions at surfaces. Topics may include catalysis and kinetics of crystallization.

322.1(2) Inorganic Chemistry I

Prerequisite: CHE 211.1(.2) or 212.1(.2) or 213.1(.2).

This course will examine the structure and bonding of the main group elements. Topics covered will include electronic structure of atoms, bonding theories, ionic solids, and an introduction to point group symmetry and group theory; descriptive chemistry of the main group elements and their compounds.

324.1(2) Inorganic Chemistry II

Prerequisite: CHE 322.1(.2).

This course examines the structure, bonding, and reactivity of transition metal complexes. Topics will include crystal field theory, ligand field theory, magnetism and electronic structure of coordination compounds; oxidation and reduction and substitution reactions of square planar and octahedral complexes. Ligands and an introduction to organometallic chemistry will also be covered.

332.1(2) Introductory Analytical Chemistry: Wet Methods [GEO 332.1(.2)]

Prerequisite: CHE 211.1(.2) or 212.1(.2) or 213.1(.2).

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.

333.1(2) Introductory Analytical Chemistry: Instrumental Methods [GEO 333.1(.2)]

Prerequisite: CHE 332.1(.2).

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.

344.1(2) Organic Chemistry I

Prerequisite: CHE 211.1(.2) or 212.1(.2) or 213.1(.2).

An introduction to organic chemistry designed for all students in life science, physical science, general science, engineering or non-science. Topics covered include the structure, nomenclature, physical properties, synthesis, reactions and spectroscopic properties of all classes of hydrocarbons: alkanes, alkenes, alkynes, arenes, alicyclic compounds, polyenes, as well as the principle heterocyclic compounds. The course emphasizes the mechanistic approach to the reactivity of organic compounds and provides a thorough introduction to stereochemistry and nuclear magnetic resonance.

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.

346.1(2) Organic Chemistry IIB

Prerequisite: CHE 344.1(.2).

A course for students in the life sciences. The course covers the chemistry of the principle functional groups in organic molecules with special emphasis on the relevance of organic functional group chemistry to

molecules of biological importance. The functional group classes include: alcohols, thiols, phenols, ethers, epoxides, aldehydes, ketones, carboxylic acids, esters, amides, anhydrides, acid chlorides, nitriles, amines, amino acids, proteins, and carbohydrates. The course emphasises the mechanistic approach to functional group reactivity and makes the connection to biochemistry at every opportunity. The stereochemical features of molecules of biological interest are emphasized.

373.1.(2) Environmental Chemistry I

Prerequisite: CHE 211.1.(2) or 212.1.(2) or 213.1.(2).

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.

374.1.(2) 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.

375.1.(2) Marine Chemistry I

Prerequisite: CHE 211.1.(2) or 212.1.(2) or 213.1.(2).

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.

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.

380.1.(2) Communication in Chemistry

Prerequisite: EGL 201.1.(2) and CHE 210.1.(2).

This course will provide the skills necessary to communicate scientific information in a logical, clear manner. Emphasis will be on written communication; students will learn proper format for reports, manuals, lab assignments, and scientific journal articles. Students will learn how to perform background research using the Library and electronic resources, and will present technical documents during the term.

Note: This course is intended primarily for chemistry students but is open to students in other disciplines.

412.1.(2) [612.1.(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.

413.1.(2) [613.1.(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.

414.1.(2) [614.1.(2)] Symmetry and Chemical Applications of Group Theory

Prerequisite: CHE 412.1.(2) or permission of instructor.

An introduction to symmetry and group theory for the experimental chemist. Applications of point groups and space groups in organic chemistry, inorganic chemistry, molecular spectroscopy, atomic and molecular structure and crystallography.

421.1.(2) Organometallic Chemistry

Prerequisite: CHE 324.1.(2) (or equivalent).

This course will deal with synthesis, structure, and reactivity of organotransition metal complexes. Topics will include transition metal-alkyls, -carbonyls, -alkenes, -alkynes and π -bonded complexes, fundamental reactions and applications to organic synthesis and catalysis. Characterization of organometallic complexes using spectroscopic techniques (IR, Raman, NMR, and ESR) and X-ray crystallography will also be covered.

422.1.(2) [622.1.(2)] Advanced Topics in Inorganic Chemistry

Prerequisite: CHE 324.1.(2) (or equivalent).

Current topics and applications of inorganic chemistry will be covered, and may include the following: cluster chemistry, chemistry of the lanthanides and actinides, inorganic and organometallic materials, bioinorganic chemistry and inorganic photochemistry.

432.1.(2) [632.1.(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.

433.1.(2) [633.1.(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.

443.1.(2) [643.1.(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.

444.1(.2) [644.1(.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.

445.1(.2) [645.1(.2)] Organic Spectroscopy

Prerequisite: CHE 345.1(.2).

An introduction to the interpretation of ^1H and ^{13}C 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.

451.1(.2) [651.1(.2)] Introductory Biochemistry

Prerequisite: CHE 345.1(.2) or 346.1(.2).

This course reviews and/or presents an introduction to the chemistry and biochemistry of macromolecules such as proteins, enzymes, simple and complex carbohydrates, lipids, nucleic acids, and coenzymes. A relationship between the molecular structure of a given macromolecule, its properties, and its function in the living system is explored. The laboratory work concentrates on the isolation, purification, and analysis of naturally occurring macromolecules and includes study of their properties, using micro chemical measurements.

452.1(.2) [652.1(.2)] Biochemistry: Metabolism

Prerequisite: CHE 345.1(.2) or 346.1(.2).

A course presenting principles of metabolism of biomolecules involved in energy production, formation of biosynthetic substrates and metabolism of nucleic acids. Both catabolic and anabolic processes as well as transport of biomolecules within cells and organs are considered.

498.0 Selected Research Topics in Chemistry

Prerequisite: this is a final year course for honors students and a recommended additional Chemistry credit for majors in Chemistry in their final year.

A weekly seminar course that covers a broad range of research topics that are of current relevance, including ethics in science. Speakers include faculty from within and outside Saint Mary's University and students will normally be expected to present two seminars.

500.0 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.

CHE 611.0 Selected Topics in Physical Chemistry

Prerequisite: Permission of the instructor.

A course on special topics selected from advanced areas of applied physical chemistry.

CHE 631.0 Selected Topics in Analytical Chemistry

Prerequisite: Permission of the instructor.

A course dealing with special topics in analytical techniques.

CHE 641.0 Selected Topics in Organic Chemistry

Prerequisite: Permission of the instructor.

Selected topics in organic synthesis including stereochemistry, heterocyclic compounds and natural products.

CHE 653.0 Selected Topics in Biochemistry

Prerequisite: Permission of the instructor.

A course that deals with special topics in biochemistry.

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 210.1(.2) and 211.1(.2)
2. MAT 210.1(.2)/211.1(.2)
3. one (1.0) credit non-chemistry science elective
4. one (1.0) credit in the humanities credit
5. EGL 205.1(.2) and one half (0.5) credit in humanities

Year 2

1. Two (2.0) credits from:
CHE 312.1(.2)/313.1(.2)
CHE 322.1(.2)/324.1(.2)
CHE 332.1(.2)/333.1(.2)
CHE 344.1(.2)/345.1(.2)/346.1(.2)
2. one (1.0) credit non-chemistry science elective
3. one (1.0) credit in the humanities
4. one (1.0) credit elective

Year 3

1. one (1.0) credit chemistry elective
2. one (1.0) credit chemistry elective
3. one (1.0) credit non-chemistry elective
4. one (1.0) credit non-chemistry elective
5. one (1.0) credit elective

Scheme B: Science Degree with a Major in Chemistry**Year 1**

1. CHE 210.1(.2) and 211.1(.2)
2. PHY 210.1(.2) and 211.1(.2)
3. MAT 210.1(.2)/211.1(.2)
4. EGL 205.1(.2) and one half (0.5) credit in humanities
5. one credit (1.0) in the humanities

Year 2

1. CHE 312.1(.2)/313.1(.2)
2. CHE 344.1(.2)/345.1(.2)
3. CHE 322.1(.2)/324.1(.2) or CHE 332.1(.2)/333.1(.2)
4. one (1.0) elective credit
5. one half (0.5) non-chemistry elective credit
6. one half (0.5) credit in Mathematics, Computing Science, or Statistics

Years 3 and 4

1. CHE 322.1(.2)/324.1(.2) or CHE 332.1(.2)/333.1(.2)
2. CHE 451.1(.2) or 452.1(.2)
3. one and one half (1.5) credits from:
 - CHE 412.1(.2) CHE 433.1(.2)
 - CHE 413.1(.2) CHE 443.1(.2)
 - CHE 414.1(.2) CHE 444.1(.2)
 - CHE 421.1(.2) CHE 445.1(.2)
 - CHE 422.1(.2) CHE 451.1(.2)
 - CHE 432.1(.2) CHE 452.1(.2)
4. Electives in order to fulfil the requirements outlined in the Faculty of Science regulations, up to two (2.0) credits of which can be in chemistry.

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)/324.1(.2) or CHE 332.1(.2)/333.1(.2)
4. MAT 310.1(.2)/311.1(.2)
5. one (1.0) credit in the humanities

Year 3

1. CHE 332.1(.2)/333.1(.2) or CHE 322.1(.2)/324.1(.2)
2. CHE 412.1(.2)
3. CHE 451.1(.2) or 452.1(.2)

4. one (1.0) credit from:
 - one of CHE 421.1(.2) or 422.1(.2) or 445.1(.2)
 - one of CHE 432.1(.2) or 433.1(.2)
 - one of CHE 443.1(.2) or 444.1(.2)
5. one (1.0) credit elective
6. one (1.0) credit non-chemistry science elective

Year 4

1. CHE 498.0
2. CHE 500.0
3. one (1.0) credit from:
 - one of CHE 421.1(.2) or 422.1(.2) or 445.1(.2)
 - one of CHE 432.1(.2) or 433.1(.2)
 - one of CHE 443.1(.2) or 444.1(.2)
4. one (1.0) credit non-chemistry science elective
5. one (1.0) credit elective

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 *Academic Calendar*.

Computing & Information Systems (CIS); Computing Science (CPS & CSC)

Computing & Information Systems courses with the prefix **CIS** are offered by the Department of Finance and Management Science; Computing Science courses, i.e., those with the prefixes **CPS** and **CSC**, are offered by the Department of Mathematics and Computing Science.

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, in particular, the law of contract. The essential elements of a contract will be discussed along with the requirements for enforcing a contract, the discharge of contracts, the assignment of contractual rights and breach of contract. The workings of the legal system will be explored. In particular, the student will be introduced to the Charter of Rights and Freedoms, the sources of law in the Canadian legal system, and the important role played by the courts in the administration of justice. In addition, the student will be introduced to the law of torts with particular attention paid to the law of negligence.

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. Topics covered include agency, bailment, insurance, real estate, bankruptcy, creditor's rights and contracts for the sale of goods. In addition, there will be an examination of the different forms of business organizations and the methods of payment used by those organizations.

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) Communications

Prerequisite: EGL 201.1(.2) or both MGT 281.1(.2) and MSC/CIS 225.1(.2).

This course emphasizes professional writing skills and prepares students to communicate effectively. Students learn to write clear, concise memoranda, letters, reports, resumes, and other documents. The course focuses mainly on written communication skills and strategies.

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 presentations.

475.1(.2) Advanced Managerial Communications

Prerequisite: COM 293.1(.2).

This course will help you deal effectively with the complexities of workplace communications and to develop communication skills through case analysis, strategic planning, and problem-solving. In the course, you

will engage in such activities as making oral presentations; conducting interviews; negotiating agreements; producing commercial messages; writing letters, memos, press releases and short reports; and using electronic media.

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 will help you deal effectively with the complexities of workplace communications and to develop communication skills through case analysis, strategic planning, and problem-solving. In the course, you will engage in such activities as making oral presentations; conducting interviews; negotiating agreements; producing commercial messages; writing letters, memos, press releases and short reports; and using electronic media.

Classes and lab 3 hrs. each a week. 1 semester.

Economics (ECO)

Chairperson, Professor	S. Amirkhalkhali
Professors	P. Arya, A. Dar, E. Doak, A. Harvey, M. MacDonald, A. Mukhopadhyay
Associate Professors	A. Akbari, S. Novkovic, N. Sharif, J. Taheri
Assistant Professor	M. Raymond
Adjunct Professors	M. Foster, C. Wilson

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 365.1(.2), 413.1(.2), 414.1(.2)
 Quantitative: ECO 302.1(.2), 303.1(.2), 403.1(.2), 409.1(.2)
 Urban-Regional: ECO 324.1(.2), 325.1(.2), 430.1(.2), 450.1(.2)
 Natural Resources and Environment: ECO 361.1(.2), 362.1(.2), 363.1(.2)
 Comparative Systems: ECO 315.1(.2), 323.1(.2)
 Cost-Benefit Analysis and Health: ECO 364.1(.2), 366.1(.2)
 History and Development: ECO 306.1(.2), 310.1(.2), 317.1(.2), 406.1(.2), 410.1(.2)
 Labour: ECO 341.1(.2), 340.1(.2)
 Industrial Organization: ECO 316.1(.2)
 Other theory courses: ECO 312.1(.2), 400.1(.2), 401.1(.2), 404.1(.2), 405.1(.2), 412.1(.2)

Students who desire a major in economics are encouraged to enrol 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 (15.0) credits. The latter requires a minimum of twenty (20.0) credits. 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:

- a. Nova Scotia Grade 12 MAT 441 or 442.
- b. EGL 205.1(.2).

c. One (1.0) credit in university mathematics beyond the level of difficulty of Nova Scotia Grade 12 Mathematics or equivalent. [MSC/ECO 205.1(.2) and MSC/CIS 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.]

d. One (1.0) credit 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.

e. One (1.0) credit from the social sciences other than economics.

f. 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 II
 ECO 207.1(.2) Introductory Statistics for Economics or
 MSC 207.1(.2) Introductory Statistics
 ECO 300.1(.2) Intermediate Microeconomic Theory
 ECO 301.1(.2) Intermediate Macroeconomic Theory
 ECO 400.1(.2) Advanced Microeconomic Theory or ECO 401.1(.2)
 Advanced Macroeconomic Theory. In total, students must complete two half courses, (1.0 credit) at the 400-level, including ECO 400.1(.2) or 401.1(.2)
 4 additional half-credit economics electives (2.0 credits).

In addition, students must satisfy conditions set down by the Faculty in which they enrol. Bachelor of Arts students majoring in economics are especially advised to consult Faculty of Arts requirement 3c when fulfilling the above regulation.

Suggested Courses Leading to a Bachelor of Arts Degree with a Major in Economics

Year 1

1. ECO 201.1(.2) and 202.1(.2)
2. Mathematics and/or computing science (see note ii below) (1.0 credit)
3. EGL 205.1(.2) and one half (0.5) non-Commerce elective
4. Social science other than economics (e.g., political science, anthropology, sociology, geography, or psychology) (1.0 credit)
5. Humanities or language [e.g., classics, history, English or modern languages, philosophy (not PHI 200.0), religious studies] (1.0 credit)

Year 2

1. ECO/MSc 206.1(.2) and ECO/MSc 207.1(.2)
2. ECO 300.1(.2) and ECO 301.1(.2)
3. One half (0.5) credit ECO elective
4. Electives (2.5 credits)

Year 3

1. ECO 400.1(.2) or ECO 401.1(.2)
2. ECO electives (2.0 credits)
3. Electives (2.5 credits)

Notes: (i) 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*.)

(ii) Students taking ECO/MSC 205.1(.2) and MSC/CIS 225.1(.2) to satisfy requirement c above, should take ECO/MSC 205.1(.2) and 206.1(.2) in Year 1 and ECO/MSC 207.1(.2) and MSC/CIS 225.1(.2) in Year 2.

A Concentration for Students in the Bachelor of Arts-General Program

To obtain a concentration in Economics in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits, a minimum of four (4.0) credits in Economics is required; also a minimum cumulative quality point average of 2.00. Further details are available from the chairperson.

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:

a. Students must satisfy the applicable requirements for a major in economics as outlined on the preceding pages.

b. The ten (10.0) credits in economics presented for honors must include:

(i) ECO 201.1(.2), ECO 202.1(.2), ECO/MSC 206.1(.2), and ECO/ MSC 207.1(.2), or equivalent;

(ii) ECO 300.1(.2) and ECO 400.1(.2);

(iii) ECO 301.1(.2) and ECO 401.1(.2);

(iv) ECO 302.1(.2), ECO 303.1(.2), and ECO 403.1(.2), or one and a half (1.5) credits from the Mathematics and Computing Science

Department with the approval of the Chairperson of the Economics Department;

(v) ECO 498.1(.2);

(vi) ECO 499.1(.2) or another advanced economics half credit course (0.5) approved by the Chairperson of the Department;

(vii) either 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), or another economics half-credit course (0.5) approved by the Chairperson;

(viii) ECO 404.1(.2) or ECO 405.1(.2).

c. With the approval of the Chairperson of the Economics Department, a student may be permitted to substitute up to two (2.0) credits from a related subject area as part of the ten (10.0) credits in economics presented for honors.

d. Commerce students doing honors in economics are permitted to count one (1.0) economics credit at the 300 level or above as a non-commerce elective.

e. 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*.

Students in the Faculties of Arts and Science have the option of declaring a minor in Economics. To satisfy the requirements for this minor students must complete four (4.0) credits in Economics, at least two (2.0) of which must be at the 300 level or above.

201.1(.2) Principles of Economics: Micro

The objective of this course is to introduce students to the basic principles of microeconomics. In particular, the course focuses on the study of the economic behavior of individual households and firms. It also focuses on the determination of the market prices of individual goods and services under different market structures.

202.1(.2) Principles of Economics: Macro

The objective of this course is to introduce students to the basic principles of macroeconomics, i.e., the study of the economy as a whole and to show the relevance of these principles for an understanding of current economic issues. Topics include: national income, the price level, employment, money and banking, monetary policy and fiscal policy, international trade and economic growth.

205.1(.2) Quantitative Methods I

Note: This is the same course as MSC 205.1(.2).

206.1(.2) Quantitative Methods II

Note: This is the same course as MSC 206.1(.2).

207.1(.2) Introductory Statistics

Note: This is the same course as MSC 207.1(.2).

300.1(.2) Intermediate Microeconomic Theory

Prerequisite: ECO 201.1(.2) and either ECO 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, and the theory of factor markets.

301.1(.2) Intermediate Macroeconomic Theory

Prerequisite: ECO 202.1(.2) and either ECO 206.1(.2) or permission of instructor.

Measurement of macroeconomic variables; models of aggregate income and price determination; unemployment and inflation; macroeconomic policy debates.

302.1(.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.

303.1(.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.

Note: This is the same course as MSC 303.1(.2).

306.1(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.

307.1(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.

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.

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.

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.

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.

317.1(2) The Economic History of Europe

Prerequisite: ECO 201.1(.2) and 202.1(.2).

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.

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.

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.

322.1(2) Canadian Economic Issues

Prerequisite: ECO 201.1(.2) and 202.1(.2).

This course deals with economic issues relevant to business and public policy. Topics may include regulation of industry and competition policy, the labour market and collective bargaining, environmental policy, public debt, fiscal federalism, stabilization policy, economic growth, and other issues of current interest.

323.1(2) Economies in Transition

Prerequisite: ECO 201.1(.2) and 202.1(.2).

This course treats problems of economic transition through case studies of the countries undergoing the transformation from plan to market. In particular, it offers the treatment of micro and macro economic problems of transition from socialist central planning to a market economy. The main focus is on issues of property rights, privatization, and institutional and legal framework. Besides those, different approaches to transition itself will be discussed, namely the shock therapy vs. gradualism, their costs and benefits.

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.

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.

340.1(2) Human Resource Economics

Prerequisite: ECO 201.1(.2) and 202.1(.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.

341.1.(2) Labour Economics

Prerequisite: ECO 201.1.(2) and ECO 202.1.(2).

This course focuses on the framework for analyzing labour market issues. Employment and wage determination under different labour market structures are analyzed. Emphasis is on the economics analysis of work incentives, wage differentials including the importance of human capital, unionization, internal labour markets, discrimination and segmented labour markets.

Note: Students with credit for ECO 339.1.(2) will not be given credit for this course.

349.1.(2) Women and the Economy

[WMS 349.1.(2)]

Prerequisite: ECO 201.1.(2) and ECO 202.1.(2).

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, changes in 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.

361.1.(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.

362.1.(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 analyzes 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 exploitation will be addressed.

Note: Students with credit for ECO 360.1.(2) will not be given credit for this course.

363.1.(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.

Note: Students with credit for ECO 360.1.(2) will not be given credit for this course.

364.1.(2) Cost-Benefit Analysis

Prerequisite: ECO 201.1.(2) and 202.1.(2).

This course deals with the methodology and problems underlying the evaluation of projects from the social welfare perspective. Topics will include various elements relevant to the measurement of social benefits and opportunity costs: market distortions, the role of time, distributional issues, uncertainty and risk. Applications discussed will be drawn from a number of areas, such as urban economics, health economics, the environment, forestry and fisheries.

365.1.(2) International Economic Issues

Prerequisite: ECO 201.1.(2) and 202.1.(2).

An examination of current issues and trends in international economics, covering international trade and international macroeconomics and finance subject areas. Different interpretations of recent events will be presented and critically appraised. Students will be expected to locate and analyze economic, financial and trade data.

366.1.(2) Health Economics

Prerequisite: ECO 201.1.(2) and ECO 202.1.(2).

This course aims at developing an understanding of the economic issues underlying the provision of health care. Students will learn how to apply the tools of economic analysis to a study of the roles of, and interactions between, health-care providers, insurers (private and public), and health care demanders, as well as questions relating to alternative modes of health care financing, with emphasis on Canadian issues.

400.1.(2) Advanced Microeconomic Theory

Prerequisite: ECO 206.1.(2) or equivalent and ECO 300.1.(2).

Advanced treatment of the theories of consumer behavior and the firm with special emphasis on duality theory; general equilibrium theory; welfare economics. Other topics may include choice under uncertainty and game theory.

Note: Students who have received a credit for ECO 440.1.(2) will not be permitted to retake this course and receive an additional credit.

401.1.(2) Advanced Macroeconomic Theory

Prerequisite: ECO 206.1.(2) or equivalent and ECO 301.1.(2).

Microeconomic foundations of macroeconomics; inflation; interest rates; exchange rates; labour markets and unemployment; investment and real business cycles; economic growth.

Note: Students who have received a credit for ECO 441.1.(2) will not be permitted to retake this course and receive an additional credit.

403.1.(2) Econometrics

Prerequisite: ECO 303.1.(2) or permission of instructor.

Theory and applications of econometric models and their estimation. Topics will include generalized least squares, dynamic econometric models, the analysis of time series models, and models with qualitative variables.

404.1.(2) Special Topics in Microeconomics

Prerequisite: ECO 400.1(.2).

Selected topics in microeconomics chosen for rigorous, in-depth study from the following areas: input markets; general equilibrium; welfare economics; intertemporal choice; information theory. Topics may vary depending on the interests of the students and the instructor.

405.1.(2) Special Topics in Macroeconomics

Prerequisite: ECO 401.1(.2).

Selected topics in macroeconomics chosen for rigorous, in-depth study from the following areas: consumption and investment; basic infinite horizon models; the overlapping generations model; business cycle theories; nominal rigidities and economic fluctuations. Topics may vary depending on the interests of the students and the instructor.

406.1.(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 wheat boom, 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.

407.1.(2) Monetary Economics

Prerequisite: ECO 201.1(.2), 202.1(.2), 300.1(.2) and 301.1(.2) or permission of instructor.

The first part of the course consists of an introduction to microeconomic monetary theory including models of money demand, models of asset demand, portfolio allocation and the firm's financial problem. The second part of the course deals with macroeconomic monetary problems such as inflation, dynamic inconsistency, monetary policy objectives and conduct of monetary policy.

409.1.(2) Econometric Modelling and Forecasting**410.1.(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 underdeveloped countries.

412.1.(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.

413.1.(2) International Macroeconomics and Finance

Prerequisite: ECO 201.1(.2) and 301.1(.2).

An introduction to the past and current issues and debates in theoretical and empirical international macroeconomics, with coverage of the foreign exchange market and associated derivative markets. Topics include the balance of payments, exchange rate determination and exchange rate and stabilization policy.

Note: Students who have received a credit for this course when it was offered as ECO 313.1(.2) will not be permitted to retake this course and receive an additional credit.

414.1.(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.

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.

430.1.(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.

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.

450.1.(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.

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.

460.1.(2) Issues in Economic Development

This course analyzes 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.

475.1.(2) Business Consultancy

Prerequisite: ECO 300.1(.2) and permission of the Chairperson.

This course allows students to gain business experience by working for clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and the final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their

preferred meeting times but are required to meet a minimum of three hours each week. For more information see <http://www.stmarys.ca/smubdc>.

Internship. 1 semester.

490.1(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.

498.1(2) Research Seminar in Economics

Prerequisite: ECO 300.1(2) and ECO 301.1(2).

The study of the nature of methodology of research from the standpoint of economics. This course is designed to assist students in developing skills necessary to design, conduct, report and evaluate economic research projects.

Students will develop a research project and produce a research report.

Seminar 2 hrs. a week. 1 semester.

499.1(2) Honors Project in Economics

Prerequisite/corequisite: admission to the honors program (thesis option) and completion of ECO 498.1(2) or permission of the Chairperson.

This course requires the completion of a major economic research project or thesis under the direction of one or more faculty members.

Independent Study.

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.

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.

600.1(2) Issues in Industrial Economics

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

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.

609.1(2) Business Forecasting

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

Business decision making relies heavily on information, and forecasting is an important tool in the provision and analysis of information. Recent advances in forecasting methodology and computer technology have opened new and challenging avenues for modeling and forecasting in the business area. This course aims to provide students with a working knowledge of forecasting models and methods (with particular emphasis on newer developments) that they may usefully be applied in a real-world setting.

611.1(2) Sustainable Resource Management

Prerequisite: completion of all 500-level MBA courses or permission of MBA Director.

This course examines the structure and dynamics of natural resource industries and their biological, economic, social, administrative and technological components. The course will cover such topics as: the role of natural resources in society; objectives of integrated natural resource development; the nature of sustainable development and environment-economy interactions in the resource sector; options for management of resources and resource industries; economics of sustainable resource use; methods for analysing resource use choices; case studies. This will be an interdisciplinary course, drawing on elements of economics, management and management science. It will give the student a grounding in natural resource management, with emphasis on the theoretical and practical application of 'sustainable development' to the resource sector.

Classes and Seminars 3 hrs. a week. 1 semester.

620.1(2) Issues in Public Finance and Fiscal Policy

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course deals with selected aspects of public policy. Issues related to public goods, externalities, fiscal federalism, tax incidence theory, direct taxation, indirect taxes, public debt and stabilization policy may be covered.

622.1(2) Managerial Economics and Public Policy Issues

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course deals with business and public policy issues. Topics may include the market mechanism, market structures, regulation of industry and competition policy, aggregate economic activity, business cycles, stabilization policy, public debt, and other issues of current interest.

663.1(2) Economics of Environment Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course focuses on the use of economic principles to understand the environmental impacts of business and household activity. The issues discussed include: causes of air and water pollution; endangered species; and the environmental impacts of human activity in fisheries, forestry and mining industries. Methods of environmental management, with special emphasis on the potential role of economic institutions and instruments, are discussed. Some discussion of current Canadian policy issues is also undertaken.

665.1(2) International Economics

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

An overview of the central themes in international trade and finance, with presentation of current policy issues and debates. Topics include: gains from trade; regional integration; multilateral trade liberalization; scale economies and trade; foreign exchange rate determination; exchange rate regimes; foreign exchange intervention and stabilization policy.

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.

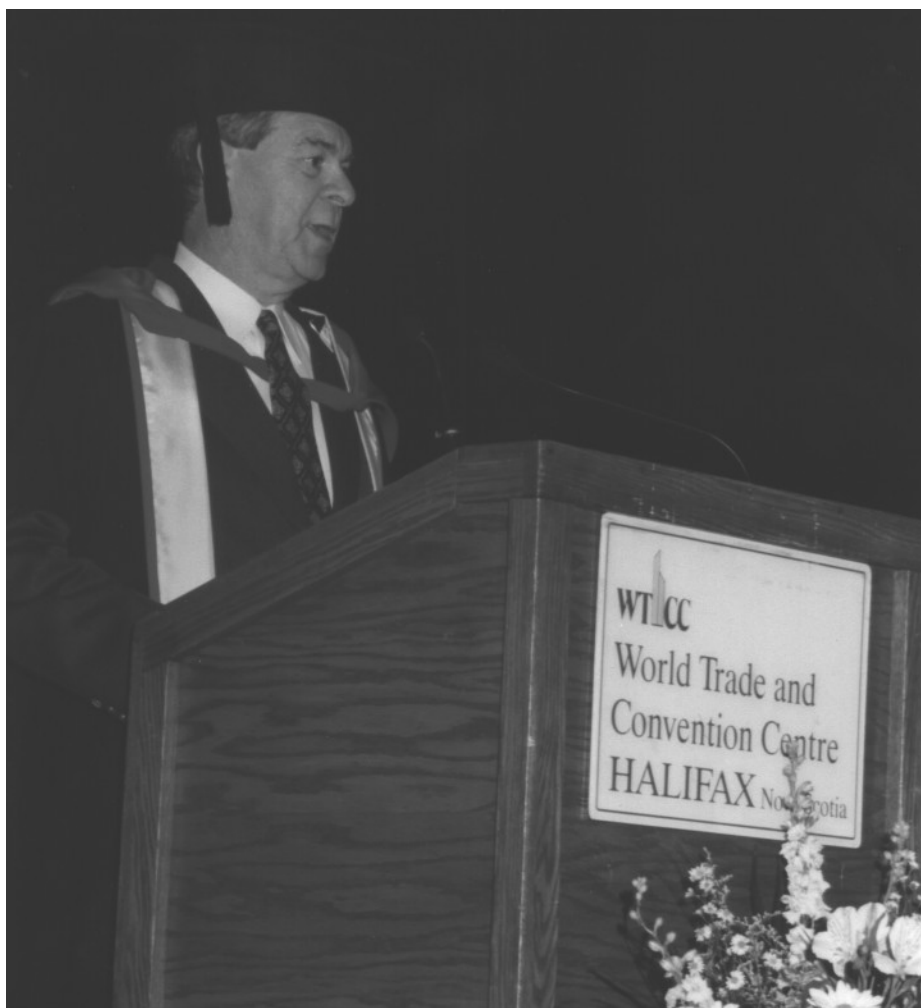
Independent study.

699.0 Research Project in Economics

Corequisite: MBA 697.1(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.



Master of Ceremonies and alumnus, Dr. Terry Murphy, Vice President, Academic & Research, presiding at Spring Convocations 2003.

Education (EDU)

Acting Dean Dr. E. Enns
Associate Professor Dr. B. Davis

Undergraduate Courses

The Faculty of Education offers undergraduate courses in the liberal study of education. These courses are available as general electives to Saint Mary's students enrolled in the Faculties of Arts, Science and Commerce, and as professional development courses to those holding Nova Scotia Bridging Teacher's Certificates. Before enrolling, those interested in using courses for the purpose of professional development should obtain the approval of the Registrar of Teacher Certification at The Nova Scotia Department of Education, PO Box 578, Halifax, Nova Scotia, B3J 2S9.

Teacher Certification Program

Saint Mary's University and the University of Maine at Presque Isle have established a program which allows students to qualify for Teacher Certification.

This is a valuable opportunity for students who began their university education after 1 August 2000 and are interested in P-12 teaching as a career. For certification as a teacher, Nova Scotia regulations require these students to complete three years of undergraduate arts and science courses plus two years of education courses, one semester of which is practice teaching.

This program provides several benefits: international experience; Certification as a teacher in both Maine and Nova Scotia; a reduced tuition rate (New England/Maritime) at the University of Maine at Presque Isle for Saint Mary's students who are Canadian, Saint Mary's international students are entitled to the out-of-state rate; conditional early admission to the University of Maine at Presque Isle at the end of the second year at Saint Mary's; guaranteed admission to the University of Maine at Presque Isle for all qualified applicants; waiver of application fees at the University of Maine at Presque Isle; completion of practice teaching in many locations, including Nova Scotia.

Students who wish to take advantage of this opportunity must complete an undergraduate degree at Saint Mary's of at least 30 half (15 full) arts and science courses, which must include the undergraduate course required for teacher certification in both Maine and Nova Scotia for the level and subject the student wishes to teach, and 5 half (2.5 full) Education courses. Students must apply to enter the Bachelor of Science in Education program at the University of Maine at Presque Isle.

At Presque Isle students will complete two semesters of Education courses (rather than the three which would otherwise be required). Students will then complete one semester of Practice Teaching, which may be done in any of several locations in Maine, Ontario, Prince Edward Island, New Brunswick and Nova Scotia (including Cape Breton).

Documents describing this program are available at The Centre for New Students, McNally Main 101.

Certificate Programs for Teachers

Saint Mary's offers two Certificate Programs suitable for the professional development of teachers which have been approved for the upgrading of Nova Scotia Teacher's Certificates.

The Certificate in the Mathematical Sciences for Education is described in the Mathematics and Computing Science section of this *Calendar*.

The Certificate in Linguistics is described in the Linguistics section of this *Calendar*.

Master of Education (TESL)

A Master of Education degree in the teaching of English as a second or foreign language is offered by Mount Saint Vincent University in cooperation with Saint Mary's. The courses in this program taught at Saint Mary's provide an introduction to the principles and practices of second or foreign language teaching and are suitable for inclusion in Integrated Programs for the professional development of teachers.

The following courses are provided for students interested in Teaching English as a Second or Foreign Language.

- (a) These courses may be taken at the graduate level by those qualified to enroll in Masters level Education courses.
- (b) These courses may also be taken as electives at the undergraduate level by students who have met the stated prerequisite.

(a) Graduate

The following courses are part of the Masters of Education (TESL) degree:

- EDU 456.0 [656.0] Curriculum and Instruction in Teaching English as a Second or Foreign Language
- EDU 458.1(.2) [EDU 658.1(.2)] Pedagogical Grammar for ESL Teachers: Theory and Practice
- EDU 459.1(.2) [EDU 659.1(.2)] Seminar and Practicum in Teaching English as a Second/Foreign Language
- EDU 461.1(.2) [EDU 661.1(.2)] Language, Culture, and Education.

(b) Undergraduate

- EDU 301.0 Philosophy of Education
- EDU 305.1(.2) Perspectives on Education
- EDU 306.1(.2) Schooling and Society
- EDU 311.1(.2) Principles of Educational Evaluation
- EDU 507.0 Sociology of Education
- EDU 439.1(.2) [EDU 639.1(.2)] The Application of Learning Theory in Education
- EDU 473.1(.2) [EDU 673.1(.2)] Innovations in Education I
- EDU 474.1(.2) [EDU 657.1(.2)] Innovations in Education II

301.0 Philosophy of Education (PHI 359.0)

Prerequisite: at least five (5.0) University credits.

This course is an enquiry into the nature and aims of education. Topics considered will include analyses of the concept of education, evaluation of contrasting views about what constitutes an ideal education, and implications of various theories of knowledge for methods of teaching and learning. Selections from historical and contemporary thinkers will be studied.

305.1(.2) Perspectives on Schooling

Prerequisite: at least five (5.0) University credits.

This course examines the role of the school in society and the role of the teacher in the school. Perceptions of school purveyed by the media and held by the public are considered and contrasted with the perspectives of teachers and students. The range of contemporary educational practice is surveyed. This course is recommended for those considering teaching as a career and for those who desire an informed perception of the day-to-day working of the school.

306.1(2) Schooling and Society

Prerequisite: at least five (5.0) University credits.

This course continues the examination of the role of the teacher in the school and the school in society begun in EDU 305.1(2). An historical and comparative perspective is used to explore teaching as a career and the school as an increasingly central feature of developed societies.

311.1(2) Principles of Educational Evaluation

Prerequisite: at least five (5.0) University credits.

Many teachers find the role of evaluator difficult and in continual conflict with their favoured roles of intellectual guide and counselor. Methods of evaluation appear to limit education goals and objectives and interfere with their attainment. This course will examine the positive and negative features of different types of evaluation, the uses of evaluation in education, and how each use supports or defeats the goals we have for educational attainment.

425.1(2) Instructional Media

Prerequisite: at least five (5.0) University credits.

In this course, students will study the use of audio-visual media in educational settings.

439.1(2) [639.1(2)] The Application of Learning Theory in Education

Selected theories of learning and classroom practices are analyzed with the purpose of determining how theories of learning are used, and how educational practices are informed and altered by them.

456.0 (656.0) Curriculum and Instruction in Teaching English as a Second or Foreign Language

Prerequisite: at least five (5.0) University credits.

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.

458.1(2) [658.1(2)] Pedagogical Grammar for ESL Teachers: Theory and Practice

Prerequisite: LIN 200.0 or enrolment in graduate program.

This course, intended for teachers of English as a Second or Foreign Language, is designed to provide a review of the syntactic structure of English, as well as ideas for how grammar can be integrated into the communicative language classroom. Topics covered in the course include contrasting types of grammatical analysis; awareness of grammar functions; different approaches to the teaching of grammar; identification, analysis, and remediation of student errors; grammatical difficulties for ESL/EFL learners; selection and evaluation of commercial texts; and preparation of pedagogical materials for students in a variety of contexts and instructional settings.

459.1(2) [659.1(2)] Seminar and Practicum in Teaching English as a Second/Foreign Language

Prerequisite: EDU 456.0 (656.0)

This course consists of a series of professional seminars designed to examine issues related to contemporary English as a Second/Foreign Language pedagogy. Topics include, but are not restricted to, needs analysis, lesson planning, classroom management, and classroom interaction. Students will use a variety of methods, techniques, and strategies to promote second language acquisition, while, at the same time,

encouraging reflective practice. This course includes a twenty-five hour supervised practicum during the semester.

461.1(2) Language, Culture, and Education

Prerequisite: at least five (5.0) University credits.

In this course students will study the interaction of people whose cultures differ in language and in their treatment of gender, race, class, the socialization of children and the status of families as cultural units.

466.1(2) [661.1(2)] Language, Culture, and Education

Prerequisite: at least five (5.0) University credits.

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. The course emphasizes the development of strategies for successful intercultural education.

473.1(2) [673.1(2)] Innovations in Education I

Prerequisite: at least five (5.0) University credits.

A critical examination of selected past innovations in education aimed at isolating aspects of them which might be incorporated in future education programs.

474.1(2) [674.1(2)] Innovations in Education II

Prerequisite: at least five (5.0) University credits.

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 promising practices which seem likely to affect the design of future education programs.

507.0 Sociology of Education (SOC 306.0)

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.

508.0 Introduction to Comparative Education

Prerequisite: at least five (5.0) University credits.

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.

509.0 Analysis and Application of Educational Concepts

Prerequisite: at least five (5.0) University credits.

Concepts which identify selected aspects of good teaching will be clarified and their application to classroom practice explored. Identification of these concepts will provide a theoretical base for in-depth study of their application in strengthening teaching.

590.0 Directed Study in Education

Prerequisite: at least five (5.0) University credits.

This course allows for directed study in an educational area.

Engineering (EGN)

External Director, Professor	A. Seaman
Professors	P. Boyle, V. Sastry, D. Swingler, V. Tarnawski
Associate Professor	D. Van Dyer

Details of the program requirements for Engineering are delineated in Section 3 of this *Calendar*.

203.1.(2) Engineering Mechanics (Statics)

Prerequisite: MAT 210.1(.2)/212.1(.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.

204.1.(2) Computer Methods for Engineers

Prerequisite: Nova Scotia Pre-calculus Mathematics 12 Academic or MAT 010.1(.2)/011.1(.2) and Nova Scotia Grade 12 Physics Academic or PHY 011.0, or equivalents.

This course introduces students to computer tools and techniques for the solution of common engineering problems. Software methods include C language programming, MathCad, spreadsheets, PC operating systems and networks will be studied. Problems involving the solution of simultaneous equations, matrix algebra, numerical integration/ differentiation, and display and analyses of experimental data will be addressed.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

206.1.(2) Engineering Design Graphics (Design I)

Graphics as a language of communication; 3D visualization; projection theory, orthographic, oblique and isometric sketching and drawing as a means of representing 3D objects on 2D paper; reading of engineering drawings; standards and conventional practices. An integral part of the course is a design project to provide students with conceptual design, team work and computer drafting experiences including reporting and presentation.

Classes 3 hrs. a week and lab 3 hrs. a week. 1 semester.

209.1.(2) Engineering Economics

This course deals with the economics of Engineering design. After introducing fundamental concepts and cash flow diagrams, interest factors are dealt with in some detail. A variety of discounted cash flow techniques are covered including rate of return calculations. Inflation, tax, replacement and risk are also amongst the topics considered.

Classes 3 hrs. a week and labs 1 hr. a week.

301.1.(2) Dynamics

Prerequisite: MAT 210.1(.2), MAT 212.1(.2), EGN 203.1(.2), and EGN 204.1(.2).

Rectilinear and curvilinear kinematics using cartesian, normal-tangential, and polar cylindrical labels: projectile motion with zero and non-zero drag. Continuous and discrete forms of the second law: work-energy, conservation of energy, impulse-momentum. Newtonian analysis of bodies in translation, rotation about a fixed axis, and plane general motion. Planar mechanisms with pin joints, sliding connections, and gears.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

303.1.(2) Fluid Mechanics

Prerequisite: MAT 210.1(.2), MAT 212.1(.2), EGN 203.1(.2), and EGN 204.1(.2).

Fluid properties, fluid statics and stability. Lagrangian and Eulerian methods of analysis. Bernoulli's equation and applications. Linear momentum equation and applications. Dimensional analysis and dynamic similitude. Viscous effects in pipe flow.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

304.1.(2) Mechanics of Deformable Bodies

Prerequisite: MAT 210.1(.2), MAT 212.1(.2), 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.

305.1.(2) Introduction to Digital Logic Circuits

This course introduces students to fundamental principles of digital system design. Topics covered include Boolean algebra; basic logic gates; combinational logic circuits including programmable logic arrays (PLA's) and arithmetic circuits; sequential logic design involving flip-flops; counters; finite state machines.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

306.1.(2) Engineering Thermodynamics

Prerequisite: PHY 210.1(.2) and 211.1(.2); also MAT 210.1(.2) and 212.1(.2).

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.

307.1.(2) Engineering Design II

Prerequisite: EGN 206.1(.2) and 204.1(.2).

The work of EGN 206.1(.2) is extended to include technical drawings and computer graphics, a design project with working drawings and a technical report, as well as the construction and testing of a physical model.

Classes 3 hrs. a week and lab 3 hrs. a week. 1 semester.

308.1(.2) Electric Circuits

Prerequisite: PHY 210.1(.2) and 211.1(.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.

309.1(.2) Probability and Statistics for Engineers

Prerequisite: MAT 210.1(.2) and 212.1(.2).

The topics covered include probability laws and the interpretation of numerical data, probability distributions and probability densities, functions of random variables, joint distributions, characteristic functions, inferences concerning mean and variance, tests of hypotheses, an introduction to linear regression. The course emphasizes engineering applications and makes extensive use of statistical computer packages.

Classes 3 hrs. and labs 2 hrs. a week. 1 semester.

310.1(.2) Technical Communications

Prerequisite: none

This course is designed to prepare students for the range of communicative functions important to professional engineers. Students will complete assignments requiring proficiency with word processing, PowerPoint (or similar software), spreadsheets and databases, and will be taught how to produce business letters, proposals, reports and oral presentations in a professional manner.

Classes 3 hrs. a week. 1 semester.

311.1(.2) Circuit Analysis (Circuits II)

Prerequisite: ENG 308.1(.2).

This course builds on the introduction to electric circuits in EGN 308.1(.2). Topics include sinusoidal steady-state response via phasor diagrams and impedance concepts; power and energy; mutual inductance and transformers; balanced and unbalanced three-phase circuits.

It is intended that labs be "virtual labs" using Electronics Workbench/Spice packages on P.C. network.

Classes 3 hours and lab 3 hours a week. 1 semester.

***Age quod agis -
What you do, do well.***

**The University's Motto. See Description on
pages 9 and 10 of this *Calendar*.**

English (EGL)

Chairperson, Associate Professor	E. Asp
Professors	C. Byrne, W. Katz, M. Larsen, R. MacDonald, R. Perkin, A. Seaman, G. Thomas, T. Whalen
Associate Professors	J. Baker, B. Bartlett, U. Esonwanne, M. Harry, T. Heffernan, J. Hill, R. Hulan, D. Kennedy, G. Stanivukovic
Assistant Professor	D. Heckerl
Professor Emeritus	K. Tudor

Introductory English

Students who have already passed a 200 level English class (any of 201, 202, 203, 204) have fulfilled the requirement for a half (0.5) credit in English as required by the new (i.e. 1 September 2003) requirements for a Bachelor of Arts degree.

Saint Mary's will not award an actual credit(s) for the designation "writing credit/course" on transfer course(s).

A passing grade in a half credit (0.5) 200 level English course is normally required for entrance to 300 level English courses. Students should normally have completed three (3.0) credits in English at the 300 level before taking 400 level EGL courses. For additional prerequisites, see individual course descriptions.

All courses meet three hours per week.

The Major Program

Students wishing to major in English must complete seven (7.0) credits in English including a half (0.5) credit at the 200 level, three and a half (3.5) credits at the 300 level and three (3.0) credits at the 400 level. The 300 level courses should include at least two (2.0) credits from the following set:

- EGL 307.0 Literary Traditions in English
- EGL 308.1(2) Development of English Prose Style, or EGL 311.1(2) Modern English Language;
- EGL 323.1(2) Practical Criticism, or EGL 324.1(2) Introduction to Theory;
- EGL 341.1(2) Introduction to Drama I, or EGL 342.1(2) Introduction to Drama II;
- EGL 391.1(2) Study of Short Fiction, or EGL 392.1(2) Study of the Novel;
- EGL 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, narrative fiction, and literary traditions and one and one half (1.5) credit in any other area 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.

Students will complete a further three (3.0) credits at the 400 level.

The Minor Program in English

A minor consists of at least four (4.0) credits in English with a maximum of one half (0.5) credit at the 200 level. Students may also minor in creative writing or linguistics.

The Minor Program in Creative Writing

Students who declare a minor in creative writing must take at least two (2.0) credits in creative writing in at least two of the four genres offered (fiction, poetry, drama and non-fiction). Students are also required to take two (2.0) more English credits beyond the 200 level.

Students who wish to major in English and minor in creative writing must take 8.0 English courses above the 200 level and fulfil the requirements of both programs. Dr. Brian Bartlett is the Creative Writing Co-ordinator.

Regulations for Concentrations

To obtain a concentration in English in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits), a minimum of four (4.0) credits in English is required; also a minimum cumulative quality point average of 2.00. Further details are available from the chairperson/co-ordinator.

The Honors Program

All prospective honors students should refer to the section of this *Calendar* pertaining to honors degrees. Students should apply to the Registrar for admission to the honors program after having taken at least three (3.0) credits in English or at the end of their second university year.

While students are encouraged to enrol formally in honors as early as possible, those who apply later will be considered if they have the requisite minimum 3.00 cumulative quality point average.

Honors students must complete the requirements listed below. A slight adjustment in the honors English requirements will be made for those in a double honors program.

Honors in English consists of ten (10.0) credits. Students who seek admission to the honors program must satisfy:

- a. the general requirements set out by the Faculty of Arts;
- b. a half (0.5) course at the 200 level;
- c. three and one half (3.5) credits at the 300 level. These should include two (2.0) credits from the following list of core courses:
 - (i) EGL 307.0, Literary Traditions in English;
 - (ii) either EGL 308.1(2), Development of English Prose Style, or EGL 311.1(2), Modern English Language;
 - (iii) either EGL 323.1(2), Practical Criticism, or EGL 324.1(2), Introduction to Theory;
 - (iv) either EGL 341.1(2), Introduction to Drama I, or EGL 342.1(2), Introduction to Drama II;
 - (v) either EGL 391.1(2), Study of Short Fiction, or EGL 392.1(2), Study of the Novel;
 - (vi) EGL 393.1(2), Study of Poetry;
 - (vii) plus one and one half (1.5) more credits at the 300 level. A 401.1(2) or 454.0 course (Special Subject/Special Author) may be substituted for any of the following 400 level courses with written permission of the Chairperson of the Department and filed with the Registrar.
- d. a further six (6.0) credits at the 400 level or above. 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)/449.1(.2);
- (v) 20th Century: at least one of EGL 424.0, EGL 428.0, EGL 440.0, EGL 450.1(.2)/451.1(.2), EGL 455.1(.2), EGL 456.1(.2), EGL 460.0, EGL 471.1(.2) and EGL 472.1(.2);
- (vi) EGL 550.0, Special Author; EGL 551.0, Special Subject; or EGL 552.0, Honors Seminar, or any 2 of EGL 553.1(.2)/554.1(.2) Special Author, Special Subject, and EGL 555.1(.2)/556.1(.2) Honors Seminar. Prospective honors students must consult with the Chairperson about admission to the program. Students must maintain a minimum cumulative quality point average of 3.00 (B) in their English courses.

Note: In the cases where courses have been renumbered or where a full-credit course has been split into two half-credit 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).

205.1(.2) Introduction to Literature

This course introduces students to works of literature in English representing a variety of historical and cultural contexts. It develops the student's ability to interpret written texts and to write about them in an informed and organized manner.

Note: This course replaces the former courses EGL 203.1(.2) and EGL 204.1(.2). Students are advised that credit will not be awarded for EGL 205.1(.2) if the student already has a credit for either of the "Introduction to Literature" I or II [i.e., EGL 203.1(.2) or 204.1(.2)].

300.1(.2) - 303.1(2); 305.0 Selected Topics

The subject matter of particular courses will be announced from time to time. These courses are designed to treat authors and topics not dealt with in other 300-level courses.

306.0 Cross-listed as CLA 306.0 The Epic

307.0 Literary Traditions in English

Prerequisite: At least one (1.0) credit in English at the 200 level or above.

This course examines literature written in English from Old English to the present with the goals of developing awareness of literary history and of exploring relationships between literature and its social and cultural contexts.

308.1(.2) Development of English Prose Style

[LIN 308.1(.2)]

The course offers a close study of the lexical, syntactic and rhetorical choices in very short selections of prose writing 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

[LIN 311.1(.2)]

The course will examine the nature of modern English semantics (meaning), syntax ('wordings'), and morphology (word formation). Some attention is also paid to intonation (soundings). The course is presented using contemporary grammatical theories.

312.1(.2) Modern English Language in Canada

[LIN 312.1(.2)]

The course examines the background of Canadian English, the qualities 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.

313.0 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.

315.1(.2) Masterpieces of Western Literature (Pre-Renaissance)

A historical survey of the major works of Western civilization from classical Greece to the Renaissance.

316.1(.2) Masterpieces of Western Literature (Post-Renaissance)

An historical survey of the major works of Western civilization from the Renaissance to the 20th century.

317.0 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 women'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.

318.1(.2) The Writer and Nature

Ranging 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 the 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.

321.1(.2) Advanced Composition

322.0 Advanced Composition (Computer Assisted)

323.1(.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.

325.1(.2) The Media in Every day Life

This course focuses on the role of printed and electronic media in forming our imaginative conceptions of the world around us.

326.1(.2) Language and Gender

[LIN 326.1(.2) and WMS 326.1(.2)]

This course examines the role of language in forming 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 enquiry 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.

327.1.(2) The Bible and English Literature**[REL 376.1.(2)]**

A study of the influence of the Bible on English literature from Anglo-Saxon times to the present. Particular emphasis will be given to the King James Bible (1611). Some attention will be paid to the ancient context and literary forms of the Jewish and Christian scriptures and to recent theoretical approaches to the relationship of the Bible and literature.

328.1.(2) The Catholic Tradition in Modern Literature in English**[REL 375.1.(2)]**

A study of the influence of Roman Catholicism on works of English literature from 1845 (the date of John Henry Newman's conversion to Roman Catholicism) to 2000. Some attention may also be paid to the Anglo-Catholic revival. By focusing on a range of literary genres, especially the novel and the spiritual autobiography, the course will investigate such topics as the influence of Catholic theology on literary form; the treatment of the conflict between individualism and authority; the representation of such controversial topics as papal infallibility, the Second Vatican Council, and the encyclical *Humanae Vitae*; the experience of Catholic women.

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 Kavanagh, Padraic Colum, Sean O'Faolain, James Stephens, J. B. Keane 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.

343.1.(2) Cultural Studies

This is an interdisciplinary course that explores culture and contexts within which culture is produced, disseminated, and consumed. The course introduces students to some of the basic cultural studies theories and methodologies, like psychoanalysis, economics, sociology, but also film and media studies, gay and lesbian theories, feminist, ethnic, and popular-culture studies.

344.1.(2) Canadian Literature to 1920

Prerequisite: EGL 205.1.(2).

An introduction to the drama, fiction, prose and poetry written in early Canadian literary history emphasizing the colonial and post-Confederation periods.

345.1.(2) Canadian Literature After 1920

Prerequisite: EGL 205.1.(2).

An introduction to the drama, fiction, prose and poetry written in Canada since 1920 studied in critical and historical context.

347.1.(2) American Literature 1820-1865

Prerequisite: EGL 205.1.(2).

A survey of major works of American literature from 1820 to the end of the Civil War. Authors may include Dickinson, Douglass, Emerson, Hawthorne, Melville, Thoreau, and Whitman. This course, along with American Literature 1865-1914, provides students with a sound historical understanding of this most formative period in American literature.

348.1.(2) American Literature 1865-1914

Prerequisite: EGL 205.1.(2).

A survey of major works of American literature from 1865 to the eve of World War I. Authors may include Cather, Chopin, Crane, DuBois, Dreiser, James, London, Twain and Wharton. This course, along with American Literature 1865-1914, provides students with a sound historical understanding of this most formative period in American literature.

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 New Wave

Prerequisite: Any two of EGL 201.1.(2), 202.1.(2) 203.1.(2), or 204.1.(2).

The course will explore visionary and speculative literature ranging from early nineteenth century speculative fictions up to and including the New Wave. Topics such as the following will be discussed: the influence of the classical writers M. Shelley, J. Verne, and H.G. Wells; the importance of the "pulp" magazines of the 1920s and 1930s and 1940s; Golden Age writers and writing; and the development of the New Wave movement.

357.1.(2) Recent Science Fiction

This course will look at the recent expansion of the genre through experiments with form and subject matter. Topics such as the following will be discussed: the influence of the New Wave movement and the Feminism; the development of Cyberpunk; interactive science-fiction, including "fandom" and the proliferation of "fanzines"; science fiction as a multi-media genre; role-playing games; millennialism; and the recent trend towards the assimilation of science fiction with fantasy and/or horror.

361.1.(2) World Literature in English: Selected Focus**364.1.(2) 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.

367.1.(2) Canlit: the 60s and 70s

Prerequisite: EGL 205.1.(2).

A study of the emergence of "Canlit" in the 1960s and 1970s with emphasis on the development of cultural institutions. In addition to the literature produced in the period, including representative poems, plays, short stories and novels, the course will examine the influence of thematic criticism, regionalism, and nationalism on the creation of Canadian canons.

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.

383.1.(2) Writing Prose - Non-Fiction

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

A creative writing course dealing with such forms of prose as travel literature, essays, reviews, memoirs, biographies, and journals. Students will experiment with various forms and critique each other's efforts in a workshop format. Published examples of non-fiction prose will be read and discussed.

391.1.(2) The Study of Short Fiction

This 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**401.1.(2) Special Author, Special Subject**

This special half-credit course provides the opportunity to study a particular author or subject in depth and detail. It is designed to examine at an advanced level authors and topics not dealt with in other 400-level courses or to allow for a different approach to the study of authors and/or topics already covered in other countries.

402.0 History of the English Language**[LIN 402.0]**

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 changes in grammar (syntax, morphology, and phonology) 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.

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 works 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 field.

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 Brontes, Thackeray, Dickens, Eliot, Hardy and James.

419.1.(2) English Poetry and Prose of the 16th Century

Prerequisite: EGL 205.1.(2) and two (2.0) credits in EGL at the 300-level or above.

The course focuses on English poetry and prose written in the 16th century, and on the cultural and social context within which this literature was produced. Some writers that may be studied include More, Wyatt, Surrey, Shakespeare, Marlowe, Lyly, Sidney, Spenser, Nashe, Whitney, Lamer, Stuart and Queen Elizabeth I.

420.0 Victorian Poetry and Prose

This course is devoted to a critical study of the work of such representative poets as Elizabeth Barrett Browning, Alfred Lord Tennyson, Robert Browning, Matthew Arnold, and Christina Rossetti, and writers of prose such as Thomas Carlyle, John Henry Newman, John Stuart Mill, and Matthew Arnold. The writers will be studied in the context of the literary, social, and cultural history of Victorian England.

421.1.(2) English Poetry and Prose of the 17th Century

Prerequisite: EGL 205.1.(2) and two (2.0) credits in EGL at the 300-level or above.

The course focuses on English poetry and prose written in the 17th century, and on the cultural and social context within which this literature was produced. Some of the writers that may be studied include Donne, Jonson, Marvell, Milton, Traherne, Herbert, Dryden, Florio, Bacon, Burton, Browne, Speght and Wroth.

427.1.(2) Language, Gender and Power

[LIN 427.1.(2); WMS 427.1.(2)]

This course examines the role of language and its use in constructing and negotiating social positions of men and women and by men and women. It compares discourse strategies used by powerful/powerless speakers and gender-associated discursive strategies. It examines dialect and generic features used in constructing and maintaining social identities and differences.

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.

429.1.(2) American Literature 1914-1950

Prerequisite: EGL 205.1.(2) (or equivalent) and two (2.0) credits in EGL at the 300-level or above.

A study of major American modernist writers of fiction and poetry from the turn of the twentieth century until the period just after World War II. Writers studied may include Hemingway, Fitzgerald, Steinbeck, Eliot, Pound and Stevens.

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.

433.1.(2) Biography

A course focusing on the special features and problems of biographical writing such as subjectivity, bias, historical perspective and the problems of evidence.

434.1.(2) Autobiography

This course explores the many ways in which various narrative forms are used to represent and relate the self. Texts to be examined will range from classics of autobiographical writing such as De Quincey to modern and contemporary works.

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**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.

439.1.(2) Literature in English 1350-1500

Prerequisite: a minimum of one (1.0) 300-level course in EGL.

In the late 14th century the viability of English as literary language was confirmed by the works of Geoffrey Chaucer and other writers. This course traces the development of late medieval literature in English up to the emergence of Modern English in the 16th century.

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.

441.1.(2) The Irish Short Story

[IRS 441.1.(2)]

This course will examine the short story as a major form in the fiction (in 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.

443.1.(2) Irish Poetry

[IRS 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.

444.1.(2) Shakespeare I

The subject of this course is Shakespeare's comedies and romances.

See note above for EGL 395.0.

445.1.(2) Shakespeare II

The subject of this course is Shakespeare's history plays and problem plays.

See note above for EGL 395.0.

446.1.(2) Shakespeare III

The subject of this course is Shakespeare's tragedies.

See note above for EGL 395.0.

447.1.(2) Shakespeare's Contemporaries

This course studies selected plays by such writers as Kyd, Marlowe, Dekker, Jonson, Beaumont and Fletcher and Webster.

450.1.(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, Coward, Rattigan, Eliot and Fry.

451.1.(2) British Drama since 1956

The “overnight revolution” in British Theatre in 1956 produced successive waves of outstanding dramatists who will be studied in the course, including Osborne, Pinter, Arden, Bond, Stoppard, Ayckbourn and Shaffer. The work of three major companies which helped to promote them, the Royal Court Theatre, the Royal Shakespeare Company and the National Theatre Company, will also be featured.

452.1.(2) Irish Drama to the End of the 19th Century**[IRS 452.1.(2)]**

This course studies Irish drama from its beginnings to the end of the nineteenth century, including the works of Farquhar, Sheridan, Macklin, Kelly, and Boucicault.

453.1.(2) Irish Drama in the 20th Century**[IRS 453.1.(2)]**

This course studies Irish drama from the founding of the Irish National Theatre society in 1903 up to the present time, including the works of Yeats, Hyde, Lady Gregory, Synge, Shaw, O’Casey, and Beckett.

454.0 Special Subject/Special Author

This course provides the opportunity to study a particular author or subject in depth and detail. It is designed to examine, at an advanced level, authors and topics not dealt with in other 400-level courses or to allow for a different approach to the study of authors and/or topics already covered in other courses.

455.1.(2) 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.

456.1.(2) The Postmodern Novel

Prerequisite: any two of EGL 201.1.(2), 202.1.(2); 203.1.(2) and 204.1.(2); or equivalent 1.0 credit in EGL.

This course focuses on some of the major novelists of the second half of the twentieth century in the context of the cultural and political climate that has given rise to this fiction and the term postmodernism.

457.1.(2) American Literature

Prerequisite: EGL 205.2.(2) and two (2.0) EGL credits at the 300-level or above.

This advanced course in American literature offers intensive treatment of authors, genres, and themes addressed at the intermediate level. Possible topics in the course may include: (1) intensive study of single authors in relation to historical trends in literary criticism (‘reception history’); (2) intensive exploration of particular currents in the development of a specific genres; (3) concept-based courses; or (4) broad-based ‘cultural studies’ approaches to American literature.

458.1.(2) Scottish Literary Traditions

Prerequisite: EGL 205.2.(2) and two (2.0) EGL credits at the 300-level or above.

A selective examination of Scottish literary traditions from the late Middle Ages to the 1960’s. As required for particular writers, attention will be paid to the Scots language and to cultural background.

459.1.(2) Contemporary Scottish Literature

Prerequisite: EGL 205.2.(2) and two (2.0) EGL credits at the 300-level or above.

A study of Scottish literature from the last quarter of the twentieth century to the present. As required for particular writers, attention will be paid to the Scots language and to cultural background. The study will proceed from the older generation of writers (MacDiarmid, Morgan, Iain Crichton Smith, S. MacLean, G. M. Brown, Spark) who are still influential, to the transitional group (Gray, McIvanney, Dunn, Kellman), and on to younger contemporary figures (Kuppner, Lochheed, Welsh, Galloway, Kennedy, Rankin and D. McLean).

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.

462.1.(2) Native North American Literature

Prerequisite: EGL 205.1.(2), EGL 344.1.(2) and/or EGL 345.1.(2) are strongly recommended.

A course on the literature arising from the awakening of Native American political consciousness in the late twentieth century. The course explores representative works of prose, poetry, drama and fiction in the context of theories generated by borderland studies and Native studies. The course will allow students to study representative works by Native North American writers in more detail than in other courses in Canadian and American literature.

463.1.(2) Imagining the North in Canadian Literature

An interdisciplinary course that explores the representation of Canada as “true north” in literature and media. Beginning with Glenn Gould’s “The Idea of North” and working through representative texts, including selections of Inuit literature written in English, the course emphasizes the mutual influence of the various genres through which Canadians imagine the north. The course exposes students to the effects of the post-modern “blurring of genres” and to the possibilities and problems of interdisciplinary study.

470.1.(2) The Rise and Fall of the Printed Book

This course focuses on the history of the printed book and examines the phenomenon of mass literacy and its implications in the development of different types of literature.

471.1.(2) Contemporary Canadian Fiction

An advanced course in Canadian fiction produced in the 70s, 80s, and 90s that gives students an opportunity to consider selected novels and short stories in some depth. Texts are considered within the context of Canadian literary criticism, history, and theory.

Note: Students who have already received a credit for EGL 371.1.(2) cannot receive an additional credit for EGL 471.1.(2).

472.1(2) Contemporary Canadian Poetry

Prerequisite: EGL 329.1(.2).

An advanced course that considers questions of genre and form in Canadian poetry after 1965. Selected collections of poetry are studied within the context of Canadian literary criticism, history, and theory. Specific topics covered include the long poem, the lyric, and visual poetry.

Note: Students who have already received a credit for EGL 371.1(2) cannot receive an additional credit for EGL 472.1(2).

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.

477.1(2) Writing Poetry (Advanced)

Prerequisite: EGL 381.0 or, prior to registration, submission of portfolio to creative writing co-ordinator.

An advanced creative-writing course, which provides students with opportunities to develop their craft beyond its beginning stages and to have their poems discussed in workshops. The course may include emphasis on poem sequences, long poems, and poets' poetics, including their prose commentaries on subjects ranging from sources of inspiration to arguments about technique.

490.0 Discourse Analysis (LIN 490.0)

Prerequisite: At least three (3.0) credits in linguistics, language or literature at the 300 level or above.

Linguistic, structural and semiotic approaches to discourse analysis are addressed. The course emphasizes the application of analytical techniques to a variety of text types.

550.0 Special Author (WMS 550.0)

Additional prerequisite: enrolment 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

Additional prerequisite: enrolment 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; 555.1(2)/556.1(2) 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.

553.1(2) - 554.1(2) Special Author, Special Subject

These courses provide the opportunity to study a particular author, subject, or period in considerable depth and detail and will require some measure of independence and initiative in the student.

English As A Second Language (ESL)

100.0 English as a Second Language

For further information on non-credit offerings in ESL, please consult the ESL Centre.

Environmental Studies (ENV)

Executive

Coordinator, M. Lamoureux	Chemistry
C. Barber	Biology
G. Barrett	Sociology
T. Charles	Management Science/ Environmental Science
C. Conrad	Geography/Environmental Studies
A. Dalton	Religious Studies
P. Jutras	Geology
M. Raymond	Marketing
R. Richardson	Environmental Science
R. Russel	Biology/Environmental Studies
N. Egiebor	Canada Research Chair

General Information

This program of study leads to a Bachelor of Science in Environmental Studies. It is a rigorous multidisciplinary program combining basic sciences, management, social sciences and humanities. It provides students with the necessary academic preparation to understand environmental and resource-oriented issues and to prepare them to contribute to an environmentally sound future. Students have the options to declare a major, double major, dual degree, honors, double honors and/or co-op. Graduates of the honors program may be qualified for admission to graduate programs in Environmental Studies or related subject

Program of Study

Major

1. Subject to the regulations set forth in this Calendar, students must complete the equivalent of twenty (20.0) credits and attain a grade of at least C (2.00 quality points) in all Environmental Studies courses (Group A3) and also in all courses selected from Groups B and C below.
2. The twenty (20.0) credits 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 (3.0) credits selected from a list of recommended arts, social science and commerce courses (Group B);
 - c. five (5.0) credits selected from a list of recommended science courses (Group C).

At least two (2.0) credits of the Group C must be at the 400 level or above.
 - d. The remaining two (2.0) credits may be selected from any discipline.
3. The choice of courses will be made in consultation with the Program Coordinator (or designate).

4. Double Major or Dual Degree

With the approval of the department involved, students may pursue a double major program in Environmental Studies and any one of the following science subjects: Biology, Chemistry, Geography, Geology or Geology/Geography. Alternatively, students can, with the approval of the department involved, pursue a dual degree in Environmental Studies and another subject in the Faculties of Arts or Commerce. Students should consult the Faculty of Science regulations as outlined in Section 3 of this *Academic Calendar*.

5. Honors or Double Honors

For the Bachelor of Science (Honors) degree in Environmental Studies, students must satisfy the requirements for a major and have a cumulative quality point average of at least 3.00. It is possible for double majors to pursue a double Honors. Students should consult the Science Faculty regulations outlined in Section 3 of this *Academic Calendar*.

Students must prepare a proposal for the Honors research project (ENV 599.0) satisfactory to their supervisor. The proposal will be subject to review by the Executive prior to approval by the Coordinator.

6. Co-op Option

Students may enrol in the Co-operative Education Program provided the minimum requirements specified in the Co-operative Education Section of this *Academic Calendar* are met.

7. The courses of Groups A1 and A2 should be among the first credits taken by the students.

8. Group A1 (core basic courses)

BIO 201.1(.2)	Principles of Biology I
and	
BIO 202.1(.2)	Principles of Biology II
CHE 210.1(.2)	Introductory Chemistry
and one of	
CHE 211.1(.2)	Introductory Chemistry for Physical Sciences
or	
CHE 212.1(.2)	Introductory Chemistry for Life Sciences
or	
CHE 213.1(.2)	Introductory Chemistry for Engineers
ECO 201.1(.2)	Principles of Economics: Micro
ECO 363.1(.2)	Environmental Economics
EGL 201.1(.2)	English Composition
EGL 205.1(.2)	An Introduction to Literature
GEO 200.0	Introduction to Earth Science
GPY 203.1(.2)	Physical Geography: Global Patterns
GPY 213.1(.2)	Physical Geography: Local and Regional Patterns

Group A2

One half (0.5) credit from the following:

GPY 326.1(.2)	Statistical Methods for Geographers
BIO 308.1(.2)	Biostatistics

One (1.0) credit in the following:

CSC 226.1(.2)	Introduction to Computer Programming I
CSC 227.1(.2)	Introduction to Computer Programming II
or	
MAT 210.1(.2)	Introductory Calculus I
MAT 216.1(.2)	Introduction to Mathematical Statistics
(see regulation in MAT section below concerning MAT 207 and 315)	
or	
MAT 210.1(.2)	Introductory Calculus I
MAT 211.1(.2)	Introductory Calculus II

One half (0.5) credit from the following:

GPY 206.1(.2)	Computers and GIS in Geography
MSC/CIS 225.1(.2)	Introduction to Computer Applications

Group A3 (Environmental Courses)

One (1.0) credit from the following:

ENV 300.1(.2)	Environmental Science
ENV 499.0	Seminar in Environmental Science

One half (0.5) credit from the following:

ENV 410.1(.2)	Environmental Impact Assessment
ENV 420.1(.2)	Environmental Monitoring and Auditing
ENV 440.1(.2)	Environmental Policy and Compliance
ENV 450.1(.2)	Natural Resource Management
ENV 460.1(.2)	Methods of Environmental and Natural Resource Analysis

9. Group B: Students must take at least three (3.0) credits from the following list. The courses have been divided into environmental core courses, and background/techniques courses, for the convenience of students.

Environmentally related courses:

ANT 306.1(.2)	Foraging Adaptation
ANT 329.1(.2)	The Arctic Cultural Area
ECO 361.1(.2)	Fisheries Economics
ECO 362.1(.2)	Natural Resource Economics
EGL 318.1(.2)	The Writer and Nature
GPY 204.1(.2)	Demographics and Culture
GPY 214.1(.2)	Environment and Livelihood
GPY 304.1(.2)	Ocean Use and Management
GPY 315.1(.2)	Environmental Management
GPY 329.0	Cultural Ecology
GPY 454.1(.2)	Bay of Fundy: Environment and Issues
HIS 353.1(.2)	History of Environmental Science
IDS 470.1(.2)	Environment and Development
MGT 388.1(.2)	Business and Society
PHI 305.1(.2)	Environmental Ethics
POL 304.0	Canadian Politics in the 21 st Century
POL 305.0	International Relations
POL 307.0	Provincial Government and Politics
POL 322.1(.2)	Global Political Economy
POL 456.1(.2)	Issues in International Society
POL 493.1(.2)	Global Social Movements
PSY 414.1(.2)	Environmental Cognition
PSY 418.1(.2)	Environmental Psychology
REL 347.1(.2)	Ecology and Religion
REL 348.1(.2)	Religion and Ecological Issues in the Developing World
SOC 310.1(.2)	Society and the Environment
SOC 391.0	Rural Sociology
SOC 419.0	Sociology of the Environment

Background courses:

COM 293.1(.2)	Communication
COM 394.1(.2)	Oral Communication and Presentation

Techniques

COM 475.1(.2)	Advanced Managerial Communications
ECO 202.1(.2)	Principles of Economics: Macro
ECO 364.1(.2)	Cost Benefit Analysis
MGT 392.1(.2)	Occupational Health & Safety
MSC 301.1(.2)	Operations Research
PHI 302.0	Ethics
PHI 448.1(.2)	Philosophy of Science
PSY 250.1(.2)	Social Behavior
PSY 309.1(.2)	Human Factors
PSY 497.1(.2)	Community Psychology

REL 349.1(.2)	Science & Religion
SOC 387.1(.2)	Women & Development

Any language courses, up to one (1.0) credit.

10. Group C: Students must take at least five (5.0) credits from the following list. Students in the honors program must take at least four (4.0) credits from the following list plus ENV 599.0: Honors Research Project.

BIO 324.1(.2)	Ecology
BIO 326.1(.2)	Diversity of Non-vertebrate Animals
BIO 327.1(.2)	Anatomy and Functional Morphology of Vertebrates
BIO 328.1(.2)	Plant Taxonomy and Identification
BIO 331.1(.2)	Population and Ecosystem Health
BIO 398.1(.2)	Introduction to Microbiology
BIO 399.1(.2)	Biology of Lower Plants
BIO 404.1(.2)	Behavioural Ecology
BIO 411.1(.2)	Animal Parasitology I
BIO 412.1(.2)	Animal Parasitology II
BIO 414.1(.2)	Environmental Microbiology
BIO 416.1(.2)	Mycology I
BIO 417.1(.2)	Mycology II
BIO 422.1(.2)	Applied Ecology
BIO 425.1(.2)	Ecology of Fishes
BIO 427.1(.2)	Introductory Entomology
BIO 428.1(.2)	Applied Entomology
BIO 429.1(.2)	Quaternary Palynology
BIO 430.1(.2)	Ornithology
BIO 431.1(.2)	Herpetology
BIO 433.1(.2)	Ecotoxicology
BIO 448.1(.2)	Biology Field Course
BIO 449.1(.2)	Aquatic Parasitology
BIO 450.1(.2)	Diversity in Forest 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 (or IIA if double major in Chemistry)
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
ENV 310.1(.2)	Field Course in Environmental Studies
ENV 410.1(.2)	Environmental Impact Assessment
ENV 420.1(.2)	Environmental Monitoring and Auditing
ENV 430.1(.2)	Directed Research

ENV 440.1(.2)	Environmental Policy
ENV 450.1(.2)	Natural Resource Management
ENV 460.1(.2)	Methods of Environmental and Natural Resource Analysis
GEO 300.1(.2)	Field Methods
GEO 325.1(.2)	Sediments and Depositional Environments
[GPY 325.1(.2)]	
GEO 340.1(.2)	Surface and Groundwater Hydrology
GEO 350.1(.2)	Environmental Geoscience Issues
GEO 400.0	International Field Camp
GEO 414.1(.2)	Global Geology
GEO 441.1(.2)	Mineral Resources
GEO 442.1(.2)	Industrial 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
GPY 313.1(.2)	Geomorphology [GEO 373.1(.2)]
GPY 316.1(.2)	Map and Air Photo Interpretation
GPY 333.1(.2)	Biogeography
GPY 336.1(.2)	Principles of Cartography
GPY 343.1(.2)	Weather & Climate
GPY 356.1(.2)	Remote Sensing of the Environment
GPY 366.1(.2)	Field Techniques and Research Methods
GPY 386.1(.2)	Concepts of Geographical Information Systems
GPY 413.1(.2)	Coastal Geomorphology
GPY 414.1(.2)	Coastal Management
GPY 423.1(.2)	Glacial Geomorphology [GEO 475.1(.2)]
GPY 433.1(.2)	Fluvial Geomorphology
GPY 436.1(.2)	Advanced Remote Sensing
GPY 443.1(.2)	Natural Hazards
GPY 353.1(.2)	Nature and Development of Physical Geography
GPY 496.1(.2)	Applications in GIS
MAT 210.1(.2)	Introductory Calculus I
MAT 211.1(.2)	Introductory Calculus II
MSC/CIS 225.1(.2)	Introduction to Computer Applications
PHY 235.1(.2)	Physics for Life Sciences I
PHY 236.1(.2)	Physics for Life Sciences II

Notes: (a) The courses of Group A3 should be taken once the courses of Groups A1 and A2 are completed.

(b) The optional courses of Group A3 can also be taken for credit in Group C but credit cannot be given twice for the same course in Groups A and C.

203.0 Biology and the Human Environment (for non-science students)

The importance of biology in today's world is discussed with particular emphasis on human ecology and the impact of human activity on other living things. 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: This is a natural science course intended for Arts students and does not fulfil the "other science" category for Science students.

300.1(.2) Environmental Science

Prerequisite: BIO 202.1(.2); CHE 210.1(.2); and GEO 300.1(.2) or GPY 203.1(.2) and officially declared major/honors in Environmental Studies.

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.

Classes 3 hrs. and lab 3 hrs. 1 semester.

310.1(.2) Field Course in Environmental Studies

Prerequisite: ENV 300.1(.2).

An examination of natural, urban and industrial ecosystems based on integrative study from the biological, geological, geographical, management, social and economic perspectives. Relationships among the physical environment, biota, and human population will be illustrated and discussed. Sampling design and techniques, treatment of data, and interdisciplinary approaches to resource management will be incorporated in field work, labs, lecture-discussion, and projects.

Presented at Acadia University and in the Halifax Metropolitan Area this course is being offered in cooperation with the B.Sc. Environmental Science Program at Acadia University, Wolfville, Nova Scotia.

Classes 72 hrs., including lab and field work. Normally this course is offered in the spring.

410.1(.2) [610.1(.2)] Environmental Impact Assessment

Prerequisite: ENV 300.1(.2).

This course describes the legislative background and techniques for the prediction of impacts on biophysical and socio-economic environments. This course will cover screening, scoping, baseline studies, impact prediction, mitigation, monitoring and auditing.

Classes 3 hrs. and lab 3 hrs. 1 semester.

420.1(.2) [620.1(.2)] Environmental Monitoring

Prerequisite: ENV 300.1(.2) and one of MAT 207.1(.2) or GPY 326.1(.2) or MSC 207.1(.2) or BIO 308.1(.2).

This course describes the principles and applications of environmental auditing and monitoring. Techniques for environmental audit of facilities, organizations and projects will be covered, together with the design of monitoring programs and techniques for atmospheric, biological, hydrological, and socio-economic monitoring.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

430.1(.2) [630.1(.2)] Directed Research

Prerequisite: ENV 300.1(.2) or permission of Environmental Studies Co-ordinator.

Students will pursue a short term research project in such areas as: oceanographic sampling and analysis, policy development or environmental impact assessment. Students must identify an appropriate supervisor; provide a project proposal; and at the end of the project, submit a written report.

Lab 6 hrs. a week. 1 semester.

440.1(.2) Environmental Policy and Compliance

Prerequisite: ENV 300.1(.2).

This course focuses on environmental policy in Canada and the world and how organizations comply with environmental regulations through standards and environmental management systems. The aspects of legislation and environmental regulations are also examined.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

450.1.(2) Natural Resource Management**[GPY 424.1.(2)]**

Prerequisite: ENV 300.1(.2) or GPY 304.1(.2), and one of MAT 207.1(.2) or GPY 326.1(.2) or MSC 207.1(.2) or BIO 308.1(.2) or permission of instructor.

This interdisciplinary course examines the management of natural resource industries such as fisheries, forestry, mining and energy, focusing on interactions between biophysical, ecological, socioeconomic, and technological components. The course will cover such topics as sustainable development and environment-economy interactions in the resource sector; approaches to integrated natural resource development; theoretical and practical aspects of managing resources and resource industries; economics of sustainable resource use; methods for analysing the impacts of resource use.

Classes 3 hrs. and lab 3hrs. a week. 1 semester.

460.1.(2) Methods of Environmental and Natural Resource Analysis**[GPY 444.1.(2)]**

Prerequisites: ENV 300.1(.2) or GPY 304.1(.2), and one of MAT 207 or GPY 326 or MSC 207 or BIO 308, and one of MAT 210 or CSC 226; or permission of instructor.

This interdisciplinary course provides a “tool-kit” of methods for planning and evaluation in natural resource and environmental management. Emphasis is placed on methods to assess dynamics of change in biophysical, ecological, socioeconomic, and technological aspects of resource and environmental systems, and for analysing the impacts of management interventions. Topics to be covered include computer-based techniques to acquire and manage information; bioeconomic and simulation models; statistical and forecasting methods; economic valuation and ecological economics; sustainability indicators in resource and environmental systems; analysis of real-world case studies.

Classes 3 hrs. and lab 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.

530.1.(2) Directed Studies in Environmental Science

Prerequisite: restricted to students in the honors program or permission of the Co-ordinator of Environmental Studies.

The course provides an opportunity for ENV honors students to study a particular subject in detail. It requires independence and initiative from the student. It involves discussion of research papers and lab work. This course is intended particularly to meet the special needs and interests of honors students. Major students may be admitted with permission of the Environmental Studies Coordinator.

Classes and labs 6 hrs. a week. 1 semester.

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.



The Fundy Coast of Nova Scotia.

Executive Master of Business Administration (EMBA)

Executive Director	H. Silverstein
Adjunct Professors	A. Faseruk, L. Holmvall, T. O'Neill, S. Sharma, M. Tugwell
Program Manager	B. Kirby

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) Strategic Marketing

In this course, students will develop the understanding and analytical skills needed to make strategic choices for achieving sustainable competitive advantage in the global market. Methods of instruction may include seminar discussions, case analysis, simulations, secondary research, and field research projects.

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 government 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 Issuance 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.

647.1.(2) Entrepreneurship and Family Business (Elective)

Through independent research, seminars, and lectures, this course covers the two topics of entrepreneurship and family business. The first topic includes: the nature of entrepreneurship, theories of entrepreneurship, characteristics and behaviours of entrepreneurship, the entrepreneur as catalyst for economic activity in developing and developed economics, and applications of the concepts of entrepreneurship to public and non-profit enterprises both large and small. The second topic includes the historical development and importance of family business, issues of succession, and management problems specific to family businesses.

690.1.(2) Seminar in Business Studies (Elective)

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.

Film Studies (FST)

Commencing in the 1998-99 academic year, a minor in Film Studies was introduced and made available to undergraduate students in all three faculties.

This minor offers students an opportunity to become familiar with the history of filmmaking, the language employed in discourse about film, and styles of artistic and social commentary about film. The courses pertaining to particular national or regional cinema allow for an understanding of the role of film in creating/expressing social identity, other courses pertain to the creation of gender identity, and yet others are concerned with film production. This is an Inter-university program which allows students to obtain credit from any of the four participating institutions - Saint Mary's, Dalhousie, Mount Saint Vincent Universities, and the Nova Scotia College of Art and Design.

Requirements: four (4.0) credits [two (2.0) required credits and two (2.0) elective credits].

Required courses (2.0)

(a) either [one (1.0) credit from NSCAD]

2800.03L: Film History and Criticism, 1890-1940, and

2801.03L: Film History and Criticism, 1940-to the present or

[one (1.0) credit from Dalhousie]

1300.6: Film Study; and

(b) also [one (1.0) credit from Mount Saint Vincent]

2293: Introduction to Film Language, and

2295: Aesthetics of Film

Elective courses [two (2.0)] currently available from the four cooperating institutions.

Regulations for Concentrations

To obtain a concentration in Film Studies in partial fulfillment of the B.A. General Degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits), a minimum of four (4.0) credits in FST is required; also a minimum cumulative quality point average of 2.00.

Further details are available from the co-ordinator.

Saint Mary's University

ACS 305.1(.2): Moving Images of Atlantic Canada

EGL 313.0: Narrative in Fiction and Film

HIS 450.1(.2): Film and History

REL 356.1(.2) [456.1(.2)] Religions in Film

Dalhousie University

Eng 2095.03 (0.5 credit) Narrative in the Cinema

Fre 2800.03 (0.5 credit) Cinema, the French Phenomenon I

Russ 2033.03 (0.5 credit) Survey of Russian Film

Mus 2015 X1Y.06(1.0 credit) Music and Cinema

Span 3800.03 (0.5 credit) Seminar in Spanish Film

Span 3810.03 (0.5 credit) Seminar in Latin American Film (In Spanish)

Thea 2310.03 (0.5 credit) Film Genres

Mount Saint Vincent University

FINE/WOMS 3330 (0.5 credit) Canadian Women Film Directors

FINE/WOMS 3333 (0.5 credit) International Women Film Directors

ENGL 2213 (0.5 credit) Contemporary Film

Nova Scotia College of Art and Design

3000 (0.5 credit) Topics: Twentieth Century Art

3850 (0.5 credit) History and Criticism of Documentary Film

4800 (0.5 credit) Independent Studies in Film History, Theory, and Criticism

Students are advised to consult the individual institutions' current *Academic Calendars* for up-to-date course listings.

At Saint Mary's, further information is available from the Film Studies Committee Coordinators

Joëlle Cauville - Tel: 420-5810

Michele Byers - Tel: 420-5869

The regular "Declaration of Major/Minor/Concentration" form is used to declare a minor. Students must fulfil all requirements for any minor(s) which they officially declared in order to qualify for graduation, or officially (i.e., in writing) withdraw their declaration of a minor(s).

Finance and Management Science (FIN, MSC, and CIS)

Chairperson	TBA
Professors	T. Charles, P. Dixon, J.C. Dodds, H. Millar, E. Lee
Associate Professors	S. Amirkhalkhali, F. Boabang, J. Gregory, D. Jutla, G. MacKinnon, M. Mohd, S. Sivakumar, M. Wang
Assistant Professors	N. Attig, K. Kimery, G. Ye
Lecturer	J. Dai

The Department of Finance and Management Science offers a variety of courses that may be classified as follows:

- a. those that deal directly with three of the primary functions of business - finance, information management, and operations management;
- b. 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; and
- c. beginning in September 2004, some courses, which have a distinct identity and academic classification from other MSC courses, will carry the prefix CIS.

In addition to the core courses in quantitative methods [MSC 205.1(.2), MSC 206.1(.2), MSC 207.1(.2)], computing [MSC/CIS 225.1(.2)], and finance [FIN 360.1(.2), FIN 361.1(.2)] 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 may elect to major in finance or computing and information systems. These two programs are outlined in Section 3 of the *Calendar*.

In addition to the computing and information systems 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 506.1(.2), MSC/CIS 521.1(.2) and FIN 561.1(.2)] 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)

360.1(.2) Business Finance I

Prerequisite: ECO 201.1(.2) and 202.1(.2); ACC 241.1(.2); and MSC 205.1(.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.

361.1(.2) Business Finance II

Prerequisite: FIN 360.1(.2) and MSC 207.1(.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.

362.1(.2) Principles of Real Estate and Appraisal

363.1(.2) Principles of Insurance

364.1(.2) Canadian Securities

Prerequisite: FIN 360.1(.2) or permission of instructor.

The topics covered in this course include an overview of capital markets and the financial services industry; financial statement analysis; an overview of the Canadian economy; fixed income securities; equity securities; investment funds; derivatives; security analysis; financing, listing and regulation; financial planning and taxation issues; and, portfolio management. These topics are based on the curriculum of the Canadian Securities Course™(CSC). Additional fees are required for C.S.I. certification.

462.1(.2) Real Estate Investment Decisions

463.1(.2) Financial Management

Prerequisite: FIN 361.1(.2).

This course expands on the three basic corporate finance decisions: capital investment, capital structure and dividend policy. It also examines current practices in short and long-term financing as well as financial planning. Finally, the course examines issues in topics such as lease financing, mergers and acquisitions and hedging risk. Case studies may be utilized to apply different concepts and techniques learned in the class to real world problems.

464.1(.2) Issues in Corporate Finance

Prerequisite: FIN 463.1(.2).

This is a senior level case-study based course in financial management. It integrates the tools learned in earlier courses in finance and applies them to comprehensive cases. By understanding the complexity of and relationship among different financial policies, students will be able to utilize finance theory to make reasonable financial decisions under realistic environment. The course will also emphasize the importance of undertaking research through information gathering for case analysis. Finally, it encourages group discussion and team work, enhances students' presentation skills and their ability to compose a well-structured, meaningful report. Data bases, spreadsheet and some financial analysis software will be used in this course.

465.1(.2) Mergers, Restructuring and Corporate Control

Prerequisite: FIN 361.1(.2).

The course examines financial and economic aspects of corporate mergers, acquisitions, joint ventures, restructuring, and financial distress. Relations between corporate control and performance are explored.

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 securities that trade in the money and capital markets. Topics covered in this course include sources of financial information, Canadian market indicators, risk and return and market efficiency, the analysis of fixed income and equity securities, derivatives and margin trading on securities. A brief introduction to portfolio management is given.

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 different types of funds, their objectives and performance evaluation; an analysis of the aggregate stock market, industry, and company; bond portfolio analysis and interest rate risk management.

468.1.(2) Financial Innovations

Prerequisite: FIN 466.1.(2).

This course provides a comprehensive analysis of the types of financial innovations taking place in the marketplace, focusing on derivative securities such as the futures, options, and swap markets. Topics covered include stock and index option strategies, currency options, and interest rate options; commodity futures; currency, interest rate, and commodity swaps. Applications to hedging strategies will be emphasized.

469.1.(2) Risk Management

Prerequisite: FIN 466.1.(2).

This course provides a comprehensive analysis of the many different types of risk exposure in the financial marketplace. It deals with risk measurement and control, from both the investor's and manager's perspective. Topics include risk and return measurement in the money, bond, equity, mortgage, futures, options and swaps markets, and diversification within domestic and global markets; hedging diversified portfolios using futures and options instruments; management of interest rate risk using caps, floors, and collars and swaps; management of foreign exchange rate risk; management of bank duration gap; and personal risk management.

470.1.(2) Fixed Income Securities

Prerequisite: FIN 466.1.(2).

This course provides a detailed analysis of the bond market and the instruments available therein. Although the emphasis is on North American securities, global portfolios are also examined. Bond valuation and bond portfolio strategies are covered in depth. Treasury securities, corporate bonds, municipal bonds, mortgages, mortgage backed securities, CMO's and interest rate options are addressed.

471.1.(2) Financial Institutions

Prerequisite: FIN 361.1.(2).

This course will deal with the structure and function of Canadian financial institutions such as: banks, brokers and investment banks, insurance companies and mutual funds. The role of each type of institution in the economy will be discussed as well as regulation of the industry. The main emphasis of the course will be on the institutions as businesses; their profit and risk structure.

476.1.(2) International Financial Management

Prerequisite: FIN 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.

490.1.(2) Seminar in Finance

Prerequisite: permission of Chairperson or instructor.

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.

491.1.(2) Small Business Consultancy

Prerequisite: permission of instructor.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student Groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's result for the client.

Work groups often include students from different disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information see <http://www.stmarys.ca/smubdc>.

Internship. 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. Prior to undertaking registration for this course, students must have a detailed course proposal approved by the appropriate instructor. Proof of this approval must be submitted at the time of registration for the course. Students are encouraged to obtain this approval prior to leaving campus in the Spring.

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.

561.1.(2) Business Finance

Prerequisite: ECO 501.1.(2); MSC 506.1.(2); ACC 540.1.(2) or 548.1.(2); 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.

662.1.(2) Seminar in Real Estate Investment

663.1.(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.

664.1.(2) Corporate Finance

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.

665.1.(2) Mergers and Restructuring

Prerequisite: FIN 561.1(.2).

The course examines financial and economic aspects of corporate mergers, acquisitions, joint ventures, restructuring, and other corporate control transactions. Relations between corporate control transactions and performance are explored. This course will expose students to key corporate finance literature.

666.1.(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 stressed. In addition, the asset-liability management of financial institutions - banks, mutual funds, insurance companies and public funds - will be reviewed.

667.1.(2) Options, Futures and Swap Markets

Prerequisite: FIN 668.1(.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.

668.1.(2) Investments and Portfolio Management

Prerequisite: FIN 561.1(.2).

This course presents an overview of the Canadian investment environment focusing on various securities that trade in the money, bonds, and equity markets. Both qualitative and quantitative treatments of risks and returns associated with investments in these markets are discussed. Applications to managed (active) and unmanaged (naive) portfolios, performance evaluation and interest rate risk management from the perspective of financial institutions. Topics covered include market transactions, portfolio theory and analysis, asset pricing models and market efficiency, security analysis, equity and fixed-income portfolio management and performance appraisal.

670.1.(2) Fixed Income Securities

Prerequisite: FIN 668.1(.2)

This course provides a detailed analysis of the bond market and the instruments available therein. Although the emphasis is on North American securities, global portfolios are also examined. Bond valuation and bond portfolio strategies are covered in depth. Treasury securities, corporate bonds, municipal bonds, mortgage backed securities, CMO's and interest rate options are addressed.

671.1.(2) Financial Institutions

Prerequisite: FIN 561.1(.2).

This course will deal with the structure and function of Canadian financial institutions such as: banks, brokers and investment banks, insurance companies and mutual funds. The role of each type of institution in the economy will be discussed as well as regulation of the industry. The main emphasis of the course will be on the institutions as businesses; their profit and risk structure.

676.1.(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 multinational 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.

690.1.(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.

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 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. Prior to undertaking registration for this course, students must have a detailed course proposal approved by the appropriate instructor. Proof of this approval must be submitted at the time of registration for the course. Students are encouraged to obtain this approval prior to leaving campus in the Spring.

699.0 Research Project in Finance

Co-requisite: MBA 697.1(.2) plus one and one-half (1.5) 600-level Finance courses (may be taken concurrently).

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) Quantitative Methods I

Prerequisite: Nova Scotia Pre-Calculus Mathematics or Mathematics 12 Academic; or MAT 050.1.(2)/051.1.(2); or equivalent.

This course illustrates applications of basic mathematical techniques in decision-making such as break-even analysis, data manipulation, aggregate planning and financial planning. Topics include linear functions and equations, linear programming and the simplex method, compound interest and annuities.

Note: This is the same course as ECO 205.1.(2).

206.1.(2) Quantitative Methods II

Prerequisite: Nova Scotia Pre-Calculus Mathematics or Mathematics 12 Academic; or MAT 050.1.(2)/051.1.(2); or equivalent.

Note: No credit will be given for MSC 206.1.(2) if taken subsequently to or concurrently with MAT 210.1.(2).

The purpose of this course is to provide a basic understanding of the dynamics of non-linear functions as they relate to the economic use of scarce resources. Students will be exposed to the basic methods of calculus and the concepts of probability as they relate to decision making in an uncertain environment.

Note: This is the same course as ECO 206.1.(2).

207.1.(2) Introductory Statistics

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 a variety of fields and disciplines. Since the analysis of data will involve the use of a computer, it is strongly recommended that a course such as MSC 225 be completed beforehand.

Note: This is the same course as ECO 207.1.(2). Additional credit will not be given for MAT 207.1.(2); MAT 216.1.(2); or BIO 308.1.(2).

301.1.(2) Operations Research

Prerequisite: MSC 207.1.(2), and MSC/CIS 225.1.(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.

303.1.(2) Statistical Analysis for Business and Economics

317.1.(2) Operations Management

Prerequisite: MGT 281.1.(2), MSC 205.1.(2) and MSC 207.1.(2).

This course addresses operations issues that contribute to how firms compete with respect to cost, quality, time and flexibility. Topics include project management, product/service and process design, process flows, quality, and supply chain management (including forecasting, inventory management, JIT, and supplier relations). Examples will be drawn from both service and manufacturing sectors.

318.1.(2) Total Quality Management

Prerequisite: MSC 207.1.(2).

Quality is an important competitive weapon in modern business strategy. Students will understand the principal role of total quality in improving the competitiveness of the firm in both local and global business environments. Topics include: total quality management (TQM) philosophies, dimensions of product and service quality, modern statistical improvement tools, and the design of quality strategies.

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.

491.1.(2) Small Business Consultancy

Prerequisite: permission of instructor.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information, see <http://www.stmarys.ca/smubdc>.

Internship. 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) Statistics for Managers

Emphasis in this course will be on developing the conceptual foundations and an in-depth understanding of the most useful statistical techniques used in marketing and management studies, in financial and economic analysis, and in accounting work. Topics include descriptive and inferential statistics, multiple regression, forecasting and quality control. The focus will be on statistical analysis of real business problems in their full complexity. Extensive use will be made of a computer package such as

Excel for exploring sets of data, for testing hypotheses, and for testing assumptions.

515.1.(2) Management of Operations

Prerequisite: MSC 506.1(.2)

This course will provide students with an understanding of the fundamental aspects of managing operations in service and production environments with greater emphasis on services. Significant attention will be given to operations issues relating directly to performance priorities such as cost, quality, flexibility, time and delivery. Topics include: operations strategy, project management, quality management, purchasing and supply chain management, forecasting, and product and service design. The course will make use of cases and will emphasize the use of the spreadsheet modeling as a tool for planning and managing operations.

603.1.(2) Statistical Applications in Management Science

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.

604.1.(2) Statistical Applications in Management Science II

615.1.(2) Strategic Design and Improvement of Operations

Prerequisite: Completion of all required 500 level MBA courses or permission of the MBA Director.

This course is aimed at the student who wants to deepen their understanding of the strategic role of operations and the design of operations to facilitate competitive advantage in both service and production environments. The strategic design and improvement of operations will be examined in the context of key performance priorities such as: cost, quality, flexibility, delivery, and time. Topics include: process design and improvement, implementation of operations improvement strategies, and integration of information technology and operations systems. The course will make significant use of cases and group work.

616.1.(2) Project Management

Prerequisite: completion of all 500 level MBA courses.

This course introduces students to fundamental issues in managing projects: project definition and scope, networks, risk management, scheduling, monitoring, organizational structure and leadership, and professional requirements. Students are exposed to project management software.

618.1.(2) Total Quality Management

Prerequisite: MSC 506.1(.2) and MBA 502.1(.2).

This course introduces the student to the concepts of total quality management, quality improvement, and statistical quality control as key ingredients of a quality strategy. The role of a quality strategy in improving the competitiveness of the firm in both local and international markets is emphasized. Using a case-oriented approach, students will be introduced to the philosophies of Deming, Juran and Crosby, the dimensions of product and service quality, modern statistical improvement tools, and the relationship between quality strategy and the functional areas of the firm.

690.1.(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.

699.0 Research Project in Management Science

Corequisite: MBA 697.1(.2), completion of a MSC/CIS 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.

Computing and Information Systems (CIS)

225.1.(2) Introduction to Computer Applications

This course is an introduction to computers and their use in a number of different environments. The emphasis is placed on learning the use of common business software packages and programming. Other topics will include computer hardware and software, data processing and information systems.

320.1.(2) Business Applications Programming

Prerequisite: MSC/CIS 225.1(.2).

This is a foundation programming language course that presents fundamental principles used in writing business applications. Primitive data types, basic data structure, flow control constructs, reusable modules, and debugging techniques are covered. Further topics include parameter-passing methods, application programming interfaces (APIs) and dynamic link libraries (DLLs). The implementation language, such as Visual Basic, will utilize object-oriented concepts. This course is a foundation course for the CIS program.

324.1.(2) The Use of COBOL in Data Processing

Prerequisite: MSC/CIS 225.1(.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.

326.1.(2) Database Programming

Prerequisite: MSC/CIS 320.1(.2).

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.

327.1.(2) Web Information Systems

Prerequisite: MSC/CIS 320.1(.2).

This course introduces students to web information systems, a sub-area of CIS that focuses on those systems that interact with the World Wide Web. Course content includes a survey of WIS applications, conceptual foundations for the design and integration of WIS applications, as well as hands-on experience designing and building WIS applications. Specific topics may include the design, implementation, management and evaluation of web pages, web-enabled applications, and web-integrated databases.

328.1.(2) Computer Configurations

Prerequisite: MSC/CIS 320.1(.2) (or concurrent).

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 for 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.

Note: Credit cannot be received for both MSC/CIS 328.1(.2) and MSC 426.1(.2).

425.1.(2) System Analysis and Design

Prerequisite: ACC 323.1(.2), MSC 326.1(.2), and MSC 328.1(.2) (or concurrently).

The intent of this course is to provide the student with the necessary skills to conduct successfully an analysis of computerized information systems. These skills include, but are not limited to, fact finding techniques, data flow modelling techniques, data dictionary syntax, information system development methodologies, and project management skills and techniques. Students will work together in groups of 4-5 to complete a comprehensive case applying the tools and techniques learned in class. A computerized development tool will be used to implement the case.

Classes 3 hrs. and lab 1 1/2 hrs. a week. 1 semester.

435.1.(2) Decision Support Systems

Prerequisite: MSC/CIS 425.1(.2).

This course focuses on the design and development of information systems to support business decision-making. Course content includes structure and exploration of generic decision support systems (DSS) of how specific types of DDS (including expert systems, executive information systems, simulation, and data mining) can address specific business problems. As a follow up to MSC 425, design and implementation strategies related to information systems development will also be addressed. Students will work in teams to design and build DSS applications using Microsoft Excel and Visual Basic.

Classes 3 hrs. and lab 1 1/2 hrs. a week. 1 semester.

436.1.(2) Data Communications

Prerequisite: MSC/CIS 328.1(.2).

This course is an introduction to data communications and networks 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.

Note: Credit cannot be received for both MSC 335.1(.2) and MSC 435.1(.1).

490.1.(2) Seminar in Computing and Information Systems

Prerequisite: permission of Chairperson or instructor.

This course deals with selected topics in computing and information systems. It is offered when in sufficient demand, and specific topics covered may vary depending on the interest of the students and instructor.

Seminar.

491.1.(2) Small Business Consultancy

Prerequisite: permission of instructor.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information, see <http://www.stmarys.ca/smubdc>.

Internship. 1 semester.

492.1.(2) Directed Study

Prerequisite: permission of Chairperson or instructor.

Intended to supplement or provide an alternative to the regular computing and information systems 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.

521.1.(2) Managing Information and Technology

This course focuses on developing an in-depth understanding of information technology in the workplace (e.g., hardware, software, and networks), organizational implications of information systems, and building and managing information systems. Instructional methods will include class discussions, case analyses, and practical projects for actual businesses.

624.1.(2) Database Systems

Prerequisite: MSC/CIS 521.1(.2).

Students will examine the design, implementation and management issues associated with database systems. The problems which arise through incorrectly designed databases are identified and their resolutions discussed. Topics on transaction processing and databases on the WWW are also covered. Labs based on an RDBMS package are given to provide a vehicle for practical implementation.

Note: One month of labs only; then lab times are reassigned as class time.

625.1(2) Electronic Commerce

Prerequisite: MSC/CIS 521.1(.2).

This course uses a multi-disciplinary approach to describe issues in Electronic Commerce. E-commerce business models and supporting technologies are described. Deployment platforms, server farms, complementary business strategies for e-commerce adoption and human resource investment in e-commerce are covered. Security issues, payment systems and legal aspects of e-commerce will be detailed. Emerging issues will be discussed.

636.1(2) Decision Support Systems

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course will introduce students to the specialized use of computer systems for supporting and enhancing managerial decision-making. Students will be introduced to the basic architecture of DSS, as well as issues involving design and implementation of various types of DSS. The course includes instruction in advanced features of Microsoft Excel. An application project will be completed either in teams or individually during the semester.

690.1(2) Seminar in Computing and Information Systems

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course deals with selected topics in computing and information systems. It is offered when in sufficient demand, and specific topics covered may vary depending on the interest of the students and instructor.

692.1(2) Directed Study

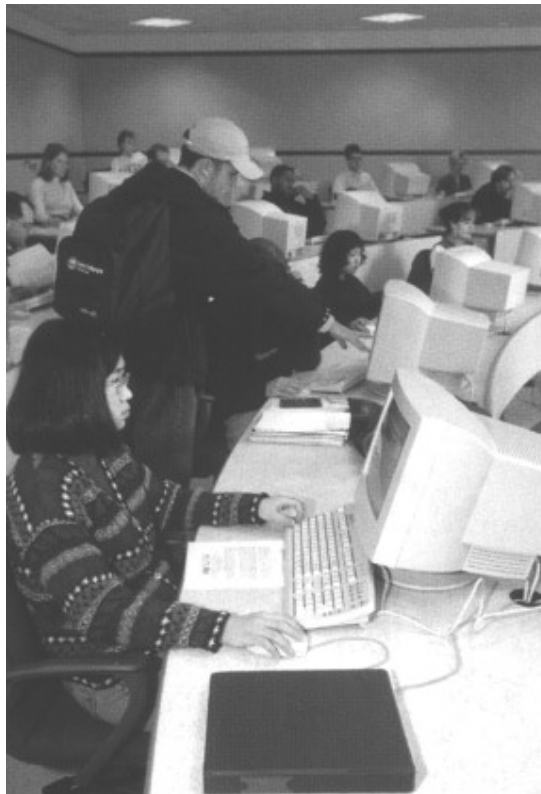
Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director, Departmental Chairperson, instructor.

Intended to supplement or provide an alternative to the regular computing and information systems 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.

699.0 Research Project in Computing and Information Systems

Corequisite: MBA 697.1(.2), completion of 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 computing and information systems, under the direct supervision of a faculty member. Interdisciplinary projects are acceptable.



One of the computer labs on campus.

Geography (GPY)

Chairperson, Professor	R. McCalla
Professor	H. Millward
Associate Professors	C. Conrad, B. Robinson
Assistant Professors	P. Giles, D. van Proosdij
Professor Emeritus	D. 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, environmental management, and geomatics. It is possible to obtain a major in geography in either a Bachelor of Arts or Bachelor of Science degree program.

Departmental Policy

- The Department regards 200 level courses as both service courses for the university in general and basic introductory courses for geography majors. Higher level courses are designed primarily 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) and history majors may be allowed to take GPY 439.1(.2).
- GPY 203.1(.2) is not recognized as a science credit to satisfy Faculty of Science regulation 6e.
- The course content in most geography courses is cumulative.
- Where a prerequisite is specified, a student wishing to take the course must have obtained at least a C grade in the stated prerequisite.
- Normally 300 and 400-level courses are not open to students in their first year at university.
- In order to register for a course without the stated prerequisites, students must first obtain permission from the instructor or the Chairperson.
- 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.
- Majors and honors students must normally complete GPY 316.1(.2) and GPY 336.1(.2) before the end of the first semester of their second year or, in the case of part-time students, before proceeding to other upper level courses.
- All majors and honors students are assigned a faculty advisor with whom they should consult each year to review their progress and course selection.
- For more complete information on geography programs, students should obtain a copy of *Notes and Guidelines for Geography Students* from the departmental secretary.

11. Geography courses are divided into four groups:

- Group A** -human geography courses;
- Group B** -physical geography courses;
- Group C** -techniques or methods courses;
- Group D** -integrative courses which may combine aspects of human geography, physical geography or techniques.

Depending on the degree program, Bachelor of Arts or Bachelor of Science, the required courses from each group vary. The group to which each course belongs is shown beside each course's title.

General Requirements for a Major

Geography is both a social as well as a natural science. Students may major in geography and obtain a Bachelor of Arts or Bachelor of Science degree. In either case the number of geography credits required is 7.0. Not only must students meet the geography requirements to qualify for a major in geography in either a Bachelor of Arts or Bachelor of Science degree, they must also meet individual Faculty requirements to qualify for the degree (see relevant sections of the Calendar). Students in the Faculty of Arts must maintain a minimum cumulative quality point average of 2.00 (an average grade of C) in courses used to meet the minimum credit requirements for the major. Students in the Faculty of Science must obtain a grade of not less than C in every course used to meet the minimum credit requirements for the major. Students wishing to major in Geography in the B.Sc. program are strongly encouraged to take a full credit in Geology.

General Requirements for a Major in Bachelor of Arts Program

- i. GPY 203.1(.2), GPY 204.1(.2), and one of 213.1(.2) or 214.1(.2);
- ii. GPY 316.1(.2), 336.1(.2) and one half (0.5) credit from GPY 326.1(.2), 356.1(.2), 366.1(.2), or 386.1(.2);
- iii. One and one half (1.5) credits in GPY at the 400 level; and
- iv. Two and one half (2.5) other credits in GPY.

Note: In addition to the three (3.0) defined credits in (i) and (ii), the four (4.0) other GPY credits may be taken from any group (A, B, C, D). After the student attains seven (7.0) GPY credits, only Group A, C, and D courses count towards the "eleven (11.0) credits in Arts subjects as the 300-level or above" (Faculty of Arts Regulation 1a). Additional Group B courses could be taken as electives.

Concentration in GPY Requirements

Students registered in the 15.0 credit Bachelor of Arts General Program may complete the concentration requirement in Geography by taking four (4.0) Geography credits, to include:

- i. GPY 203.1(.2) or 204.1(.2)
- ii. GPY 213.1(.2) or 214.1(.2)
- iii. three (3.0) other GPY credits at the 300-level or above.

General Requirements for a Major in Bachelor of Science Program

- i. GPY 203.1(.2), 204.1(.2), and 213.1(.2);
- ii. GPY 316.1(.2), 336.1(.2) and one half (0.5) credit from GPY 326.1(.2), 356.1(.2), 366.1(.2), or 386.1(.2);
- iii. At least two and one half (2.5) other credits from Group B courses at the 300 level or above, of which at least one (1.0) credit must be at the 400 level; and
- iv. One and one half (1.5) other credits from any group.

Note: A total of one and one half (1.5) GPY credits must be at the 400-level. After the student has attained the required seven (7.0) GPY credits,

any additional GPY credits would be taken as free electives in the Faculty of Science.

Double Majors and Geology/Geography Combined Programs

Students wishing to complete a double major in geography and another subject must meet the requirements for a major in geography as stated above. Bachelor of Arts and Bachelor of Commerce double major students would complete the requirements for a geography major in Bachelor of Arts program; Bachelor of Science double major students would complete requirements for a geography major in the Bachelor of Science program.

Note: See the Geology section of the *Academic Calendar* for particular course requirements to complete the Geology/Geography Combined program which allows students to complete either a major or honors.

Geography Major (Bachelor of Arts) with a Minor in Geology

1. A Bachelor of Arts degree student may major in geography with a minor in geology by fulfilling the requirements for a minor as listed in the geology section of the *Academic Calendar*.
2. 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.)
3. Students accepted into the geology minor program will be allowed to count four (4.0) geology credits towards their Arts degree requirements.

Honors Program

1. Depending on whether the student is undertaking a Bachelor of Arts or a Bachelor of Science degree, the regulations of the respective Faculty apply to admission, continuance and graduation from honors program.
2. To be admitted to the honors program, a student must have at least a B standing in geography courses and have obtained satisfactory grades in non-geography courses. Possession of the minimum requirements does not establish the right of an applicant to be admitted, or readmitted, to the program.
3. Each year students should seek advice on their program of courses from the Honors Program Coordinator.
4. Students admitted to the program are responsible for finding a member of the Department to act as their Honors Research Project supervisor.
5. 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*.
6. Besides meeting the respective Faculty credit and grade level requirements, students must complete a total of twelve (12.0) geography credits to qualify for graduation with honors.

For the Bachelor of Arts degree, the twelve (12.0) credits are:

- i. GPY 203.1(.2), 204.1(.2) and either 213.1(.2) or 214.1(.2);
- ii. GPY 316.1(.2), 326.1(.2), 336.1(.2), and one of GPY 356.1(.2), 366.1(.2), or 386.1(.2);
- iii. GPY 406.1(.2) and 416.1(.2);
- iv. GPY 526.1(.2); and
- v. Six and one half (6.5) other GPY credits from any group of which at least one (1.0) credit must be at the 400 level.

For the Bachelor of Science degree, the twelve (12.0) credits are:

- i. GPY 203.1(.2), 204.1(.2), 206.1(.2) and 213.1(.2);
- ii. GPY 316.1(.2), 326.1(.2), 336.1(.2) and one of GPY 356.1(.2), 366.1(.2), or 386.1(.2);
- iii. At least three (3.0) credits from Group B courses at the 300 level

or above, of which at least one (1.0) credit must be at the 400 level;

- iv. GPY 406.1(.2) and 416.1(.2);
- v. GPY 526.0; and
- vi. Three and one half (3.5) other GPY credits from any group, of which one (1.0) must be at the 400 level.

Minor Program in Geography

Students in a Bachelor of Arts or Bachelor of Commerce program wishing to complete a Minor in geography are required to complete at least four (4.0) credits in geography, including GPY 203.1(.2) or 204.1(.2) and 213.1(.2) or 214.1(.2). Two (2.0) credits must be at the 300-level or above. The other credits are not designated.

Students in a Bachelor of Science program wishing to complete a Minor in geography are required to complete at least five (5.0) credits in geography, including GPY 203.1(.2), 204.1(.2), 213.1(.2) and at least one and one half (1.5) credits from Group B or C courses. The other credits are not designated.

203.1(.2) Physical Geography: Global Patterns (Group B)

An introduction to physical geography by studying global patterns of Earth's natural environment. Spatial and temporal patterns are emphasized and explained by describing underlying processes. Topics include: the Earth-sun system, oceans, global heat circulation, climate, biogeographical realms, soils, and plate tectonics. A complement to introductory courses in human geography and a preparation for studying physical geography at local to regional scales in GPY 213.1(.2).

204.1(.2) Demographics and Culture (Group A)

An introduction to the study of human geography. The course describes and explains geographical patterns of the customs, social forms and material traits of human groups. Topics for discussion are: population, migration, language, religion, social beliefs and political organization. Consideration of topics is at the global, regional and local scale.

206.1(.2) Computers & GIS in Geography (Group C)

The course serves as an introduction to the use of computers to gather, display and analyze geographical information. Topics for discussion include: basic geographical concepts (location, scale, projections), gathering geographical information on the World Wide Web, digital mapping, digital image processing and geographical information systems (GIS). Capabilities and limitations of computers in geography are also discussed.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

213.1(.2) Physical Geography: Local and Regional Patterns (Group B)

Prerequisite: GPY 203.1(.2).

A continuation to the introduction of physical geography that focuses on patterns and processes occurring at local and regional scales. Phenomena to be covered include: weather, tides and waves, landforms, effects of environmental changes, natural hazards, the influence of topography on physical patterns, and human impacts on landscapes. There will be introductions to reading topographic maps and to the methods of remote sensing and aerial photography interpretation.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

214.1(.2) Environment and Livelihood (Group A)

Prerequisite: GPY 204.1(.2).

A continuation from GPY 204.1(.2). This course describes and explains geographical patterns of resource exploitation, Earth use and abuse. Topics for discussion include economic development, food production, industry,

rural settlement, urbanization and resource management. Consideration of topics is at the global, regional and local scale.

Classes 2 hrs. and lab/tutorial 2 hrs. a week. 1 semester.

300.0 Geography of Canada (Group D)

302.0 The Geography of World Affairs (Group D)

Prerequisite: at least 5.0 credits.

The course introduces students to various facets of geography and to different approaches to geographical analysis, through a study of major world problems including conflicts over the division of land, sea and outer space; relationships between population growth and resources; food supply and health problems; natural hazards; the effects of climatic change; levels of economic development; ethnic and religious conflicts.

304.1(.2) Environmental Management (Group D)

Prerequisite: GPY 213.1(.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.

305.1(.2) The Oceans: A Physical Geography (Group B)

Prerequisite: GPY 213.1(.2).

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 relief 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.

311.1(.2) Rural Geography (Group A)

Prerequisite: GPY 204.1(.2).

Examines the nature of rural settlement and land use in various cultural and technological settings. Emphasis is placed on agricultural patterns, and the changing organization of the countryside in modern societies. 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.

312.1(.2) Urban Land Use (Group A)

Prerequisite: GPY 204.1(.2).

The course analyzes the pattern of land use and the process of land use 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 land in cities; public and semi-public land; the impact of public policies on urban land use.

313.1(.2) Geomorphology (Group B)

[GEO 373.1(.2)]

Prerequisite: GPY 213.1(.2) or GEO 200.0.

Geomorphology is the scientific study of landforms and landscapes. This course explores the basic principles of geomorphology, with an emphasis on Canadian landscapes, and prepares students for advanced studies in

coastal, fluvial, and glacial geomorphology. A field trip will normally be offered.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester. Some field work may be required.

315.1(.2) Ocean Use and Management (Group D)

Prerequisite: at least 5.0 credits.

A geographical study of the present and future uses of the oceans. Examination of the development and spread of new and traditional oceanic 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.

316.1(.2) Map and Air Photo Interpretation (Group C)

Prerequisite: GPY 203.1(.2) and 204.1(.2).

The first part of the course will focus on the properties, interpretation, and analysis of official series maps such as topographic maps, land capability maps, and nautical charts. This will be followed by an analysis of the properties of aerial photographs and the principles of airphoto interpretation.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

321.1(.2) Geography of Manufacturing (Group A)

Prerequisite: GPY 214.1(.2).

The 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. Examples include iron and steel, motor vehicles, and oil refining.

325.1(.2) Cross-listed as GEO 325.1(.2) Sediments and Depositional Environments (Group B)

Prerequisite: GPY 213.1(.2) or GEO 200.0.

326.1(.2) Statistical Methods for Geographers (Group C)

Prerequisite: GPY 213.1(.2) or 214.1(.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.

329.1(.2) Cultural Ecology (Group A)

332.1(.2) Geography of Transportation (Group A)

Prerequisite: GPY 214.1(.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.

333.1.(2) Biogeography (Group B)

Prerequisite: GPY 213.1(.2).

A study of the spatial and temporal distribution of plants and animals on Earth. Local to global scale patterns of species distribution in terrestrial and marine environments are explained by examining physical controls, ecological principles, and human impacts. Species changes over space and time are described by covering evolution, migration, succession, and extinction. Examples are drawn from Atlantic Canada where possible.

336.1.(2) Principles of Cartography (Group C)

Prerequisite: GPY 203.1(.2) and 204.1(.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 2 hrs. a week. 1 semester.

339.0 Cultural Geographies (Group A)

Prerequisite: GPY 204.1(.2).

Cultural themes include globalization, local diversity, tourism, home, place, and representations of all of the above in the media, the tourist industry, and by cultural producers in general. The emphasis on the course is on doing cultural geography in projects rather than on consuming culture as a content or body of knowledge. Special emphasis is placed on understanding the local cultural environment (e.g., Halifax) in the context of wider issues (e.g., tourism, globalization, and media representations).

340.1.(2) Geography of Nova Scotia (Group D)

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.

343.1.(2) Weather and Climate (Group B)

Prerequisite: GPY 213.1(.2).

An investigation of weather and climate systems on Earth across a wide range of spatial and temporal scales. Topics include: the atmosphere, energy balances, microclimates, regional weather, and global climate processes. The focus is on describing and explaining current weather and climates, but past Earth climates will also be examined.

353.1.(2) Nature and Development of Physical Geography (Group B)

Prerequisite: GPY 213.1(.2)

This course surveys the important ideas and advances in the growth of the discipline of physical geography. Developments and major contributors to the fields of geomorphology, atmospheric studies, biogeography, and ocean studies will be considered. The objective of the course is to understand the current framework and nature of physical geography by investigating the historical context of the subject.

356.1.(2) Remote Sensing of the Environment (Group C)

Prerequisite: GPY 316.1(.2).

This course is a study of the acquisition, storage, manipulation, analysis, interpretation, and applications of remotely sensed digital imagery. A range

of sensors and spatial scales of imagery are introduced. Image interpretation and processing skills are developed using current image processing software.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

360.1.(2) Geography of Japan (Group D)

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.

366.1.(2) Field Techniques and Research Methods (Group C)

Prerequisite: GPY 213.1(.2) or 214.1(.2).

Addresses questions in the design and conduct of geographic research, including field techniques. Topics include: formulating a research plan, developing hypotheses, locating and measuring field phenomena, sampling designs, levelling techniques, questionnaires, and presenting results. Students will be expected to attend sessions in the field outside regular classes and labs.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

379.1.(2) Cross-listed as ANT 379.1.(2) and IRS 379.1.(2) Irish Material Culture (Group A)**380.1.(2) Geography of China (Group D)**

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.

386.1.(2) [686.1.(2)] Concepts in Geographical Information Systems (GIS) (Group C)

Prerequisite: GPY 206.1(.2).

This course provides an introduction to geographic information systems (GIS). Consideration is given to GIS data structure, data input, quality, storage and editing, GIS analysis functions and an introduction to the implementation of a GIS. Although the course has a strong technical component, the central underlying theme is using GIS to improve decision making in natural, human and management sciences.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

390.1.(2) Geography of Ireland (Group D)
[IRS 391.1.(2)]

Prerequisite: at least 5.0 credits.

An examination of the physical, social, cultural, economic, and political geography. Special emphasis will be given to the nature of past and present internal population movements and emigration patterns, regional variations in economic development, and the effects of membership in the European Union.

394.1.(2) Geography of Maritime Transportation (Group A)

Prerequisite: GPY 204.1(.2).

The course considers the spatial dynamics of world maritime transport. Topics include: theories of trade, shipping's contributions to world trade,

the world merchant marine, changing time-space relationships with increasing ship size and specialization, containerization and intermodality, locational characteristics of ports, hinterland penetration and foreland development, port development and competition.

406.1(2) Seminar in Theoretical Geography (Group D)

Prerequisite: Year 3 and Year 4 students in geography.

Students will be made familiar with major advances in theoretical and philosophical aspects of geography.

**413.1(2) [653.1(2)] Coastal Geomorphology (Group B)
[GEO 476.1(2)]**

Prerequisite: GPY 313.1(2).

This course discusses both the physical processes that operate in the coastal zone and the resulting landforms. The actions of waves, tides, currents, sea level changes, wind, and humans in the formation of coastal features are considered. Additional topics include the long-term development and classification of coasts.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester. Some field work may be required.

414.1(2) [614.1(2)] Integrated Coastal Zone Management (Group D)

Prerequisite: GPY 206.1(2) and either GPY 304.1(2) or 315.1(2).

Spatial approaches to the integrated planning and management of the coastal zone within a sustainable development framework will be discussed and analyzed using case studies from intensively developed coastal zones in Europe, the Mediterranean, Southeast Asia, and North America. Emphasis will be placed on the use of geographical information systems as management and planning tools.

Classes 2 hrs. and 2 hrs. lab or field work a week. 1 semester.

416.1(2) Seminar in Applied Geography (Group D)

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.

**423.1(2) [623.1(2)] Glacial Geomorphology (Group B)
[GEO 475.1(2)]**

Prerequisite: GPY 313.1(2) or GEO 373.1(2).

The study of geomorphological processes and landforms in glaciated environments. Emphasis will be placed on descriptions and explanations of glacial processes and glacial landform development. Glacial history will form a minor component of the course.

Classes 2 hrs. and lab 2 hrs. a week . 1 semester.

424.1(2) Cross-listed as ENV 450.1(2) Natural Resource Management (Group D)

432.1(2) [632.1(2)] Social Geography of the City (Group A)

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 amenity locations and facilities, and on the conflicts over noxious facilities.

433.1(2) [633.1(2)] Fluvial Geomorphology (Group B)

Prerequisite: GPY 313.1(2) [GEO 373.1(2)] or GEO 325.1(2) [GPY 325.1(2)].

This course examines processes and landforms associated with rivers. Topics include channel processes and morphology, sedimentology and depositional environments. Case studies of human impacts on river systems are also presented.

Classes 2 hours and lab 2 hours a week. 1 semester.

436.1(2) [636.1(2)] Advanced Remote Sensing (Group C)

439.1(2) [639.1(2)] Urban Historical Geography (Group A)

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.

442.1(2) [642.1(2)] Urban Planning (Group A)

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.

443.1(2) [643.1(2)] Natural Hazards (Group B)

Prerequisite: GPY 313.1(2) and GPY 343.1(2).

This course considers natural hazards as a part of human-environment relations characterized by changing geographical patterns. Earthquakes, volcanic eruptions, landslides, severe weather, floods, coastal hazards, extraterrestrial body impacts are analyzed in a multi-scale perspective, along with their functional relationships. The human impact of natural hazards is discussed, with an emphasis on environmental perception, public awareness and action. Possibilities of forecasting are examined, as well as risk assessment and mitigation strategies.

444.1(2) Cross-listed as ENV 460.1(2) Methods of Environmental and Natural Resource Analysis (Group D)

449.1(2) Tourist Geographies (Group A)

Prerequisite: GPY 339.0.

The course is concerned with the meanings of tourist places. "Meaning" refers to the symbolic, historic, or natural significance of the geographies involved in attracting people to some places rather than others. The course examples range from theme parks like Disneyland to world heritage sites like Lunenburg. As many examples as possible are taken from Nova Scotia areas.

452.1(.2) [652.1(.2)] The Geography of Urban Transportation (Group A)

Prerequisite: one of GPY 312.1(.2), 332.1(.2), or 394.1(.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.

454.1(.2) Bay of Fundy: Environments and Issues (Group D)

Prerequisite: GPY 213.1(.2) or GPY 214.1(.2) and one half credit (0.5) in GPY at the 300 level or above or ENV 300.1(.2).

This interdisciplinary course examines physical, biological and human environments, processes and issues in the Bay of Fundy region from both a historical and a contemporary view. Topics include physical and biological processes such as tides and biological productivity, ecosystems such as tidal flats and saltmarshes, settlement patterns, and resource use. Emphasis is placed on current issues and solutions.

Classes 2 hours and seminar 2 hours a week. 1 semester.

465.1(.2) Cross-listed as GEO 465.1(.2) Sedimentology (Group B)

Prerequisite: GPY 325.1(.2) or GEO 325.1(.2).

466.1(.2) and 467.0 Directed Study (Group D)**496.1(.2) [696.1(.2)] Applications in Geographical Information Systems (Group C)**

Prerequisite: GPY 386.1(.2).

This course allows students to develop further their understanding of GIS and its applications. The course allows students to further develop their understanding of GIS and its applications. This course is project-oriented, focusing on the use of geographic information systems (GIS) to address practical problems in areas such as resource management, marketing,

regional planning, natural hazards and geomorphology. Students will undertake a major research project using various GIS analytical functions, and develop skills relating to data creation, manipulation, quality assessment and presentation.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester.

526.0 Honors Research Project (Group D)

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.

Although the Department of Geography does not offer a graduate program, a number of graduate level courses are available. These are:

GPY 602.0 Directed Studies in Urban/Regional Geography
 GPY 603.0 Directed Studies in Environmental Geography
 GPY 604.0 Directed Studies in Marine Geography
 GPY 605.0 Directed Studies (General)
 GPY 612.1(.2) Directed Studies in Urban/Regional Geography
 GPY 613.1(.2) Directed Studies in Environmental Geography
 GPY 614.1(.2) Integrated Coastal Zone Management
 GPY 615.1(.2) Directed Studies (General)
 GPY 624.1(.2) Directed Studies in Marine Geography
 GPY 623.1(.2) Glacial Geomorphology
 GPY 632.1(.2) Social Geography of The City
 GPY 633.1(.2) Fluvial Geomorphology
 GPY 636.1(.2) Advanced Remote Sensing
 GPY 639.1(.2) Urban Historical Geography
 GPY 642.1(.2) Urban Planning
 GPY 643.1(.2) Natural Hazards
 GPY 652.1(.2) The Geography of Urban Transportation
 GPY 653.1(.2) Coastal Morphology
 GPY 686.1(.2) Concepts in GIS
 GPY 696.1(.2) Applications in GIS

For further information, please consult the Chairperson of the Department of Geography.

Geology (GEO)

Chairperson, Professor	V. Owen
Professors	J. Dostal, G. Pe-Piper
Assistant Professors	P. Jutras, A. MacRae
Adjunct Professors	D. Kontak, D. Mossman, D. Piper

We are directly dependent on the Earth for our survival. Geology is the study of the Earth, its materials, the processes that affect its surface and interior, and the history of change that it has undergone. For students enrolled in the degree of Bachelor of Science with a concentration, major, or honors in geology, the department offers a full program of courses. Many of these courses may also be taken by students majoring in other science subjects. A combined geology/geography program emphasizes environmental aspects of geology, and a program combining geology and business studies emphasizes the economic aspects of the Earth. In addition, a number of courses are offered for non-science students, emphasizing global aspects of geology, Earth history, and the interactions between the Earth and human society.

Science students interested in geology, including those who are entering the double majors and honors programs in geology, should take GEO 200.0. This course provides a broad survey of the discipline, with practical experience provided through labs and field trips. Courses in mineralogy (GEO 301.1, 302.2) and the history of life and sedimentary environments [GEO 320.1(.2) and GEO 325.1(.2)] are also recommended as supporting science subjects for students majoring in other sciences.

GEO 202.1(.2), GEO 203.1(.2) and GEO 208.1(.2) are designed chiefly for students in Commerce and Arts, including Atlantic Canada Studies. In exceptional cases where a student has taken GEO 202.1(.2) and GEO 203.1(.2) (previously GEO 204.0) with high standing, those courses may, with the permission of the Department, be accepted in the geology major or honors program in lieu of GEO 200.0.

Students in the major and honors programs 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. Under special circumstances, some prerequisites for 300, 400 and 500-level courses may be waived with the permission of the Department.

The Geoscience Profession Act was proclaimed in Nova Scotia in March 2003. This Act requires that one be a member in good standing of The Association of Professional Geoscientists of Nova Scotia (or another provincial counterpart) in order to work in geoscience-related fields in this province. Consequently, when choosing Science electives to fulfill Faculty of Science regulation 6(e), Geology major and honours students should consult APGNS guidelines. Current APGNS guidelines can be obtained from the Geology chairperson.

1. Geology Major

The courses of the core program for a student majoring in geology are:

GEO 200.0 Introduction to Earth Science
 GEO 301.1(.2) Mineralogy
 GEO 302.1(.2) Optical Mineralogy
 GEO 312.1(.2) Igneous Petrology
 GEO 313.1(.2) Metamorphic Petrology
 GEO 325.1(.2) Sediments and Depositional Environments
 GEO 326.1(.2) Sedimentary Petrology and Stratigraphy
 GEO 413.1(.2) Structural Geology

At least two of:

GEO 441.1(.2) Mineral Resources

GEO 442.1(.2) Economic Mineral Deposits

GEO 466.1(.2) Petroleum Geology

Students are required to take at least one and one half (1.5) additional geology credits for a minimum total of seven (7.0) credits in the Department. It is strongly recommended that all geology major and honors students take GEO 300.1(.2) Field Methods.

The following first and second year course selections are recommended for students in the major and honors programs in geology:

Year 1

1. GEO 200.0
2. MAT requirement (see Faculty of Science regulations, Section 3 of this *Academic Calendar*)
3. non-geology science elective (1.0)
4. EGL 205.1(.2) and one half (0.5) credit in humanities
5. non-science elective (1.0)

Year 2

1. GEO 301.1(.2) and 302.1(.2) (1.0 credit)
2. GEO 325.1(.2) (0.5 credit)
3. GEO 300.1(.2)* (0.5 credit)
4. 300 or 400 level geology course with lab (1.0 credit)
5. non-geology science elective (1.0)
6. non-science elective (1.0)

*GEO 300.1(.2) may also be taken in a later year of the program

For subsequent years, students should consult the Departmental Chairperson.

2. Geology Honors

The honors program requires GEO 550.0 in addition to the core courses for majors, supplemented by sufficient geology courses for a minimum of ten (10.0) credits.

3. Double Major and Honors

Students may pursue a double major in geology and another science subject, as outlined in Section 3 of this *Calendar*.

Students taking a double major are required to take at least six (6.0) geology credits from the following list:

GEO 200.0 Introduction to Earth Science
 GEO 301.1(.2) Mineralogy
 GEO 302.1(.2) Optical Mineralogy
 GEO 305.1(.2) Geophysics
 GEO 312.1(.2) Igneous Petrology
 GEO 313.1(.2) Metamorphic Petrology
 GEO 323.1(.2) Palaeontology: History of Life
 GEO 325.1(.2) Sediments and Depositional Environments
 GEO 326.1(.2) Sedimentary Petrology and Stratigraphy
 GEO 340.1(.2) Surface and Groundwater Hydrology
 GEO 350.1(.2) Environmental Geoscience Issues
 GEO 413.1(.2) Structural Geology
 GEO 414.1(.2) Global Geology
 GEO 441.1(.2) Mineral Resources
 GEO 442.1(.2) Economic Mineral Deposits
 GEO 453.1(.2) Principles of Geochemistry
 GEO 454.1(.2) Applied Geochemistry
 GEO 466.1(.2) Petroleum Geology
 GEO 475.1(.2) Glacial Geomorphology

For a double honors, students must complete at least seven (7.0) credits from the above list. In addition, students who are taking their thesis in geology must take Geo 550.0 for a total of at least eight (8.0) geology credits

4. Geology/Geography Combined Programs

These programs offer Bachelor of Science and Bachelor of Science (Honors) degrees, emphasizing environmental Earth Science, 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.

a. Geology/Geography Major Program (Bachelor of Science)

- i. At least six (6.0) credits from the list of geology courses under 'Double Major and Honors', above.
- ii. At least six (6.0) geography credits including:
 - GPY 203.1(.2) Physical Geography: Global Patterns
 - GPY 213.1(.2) Physical Geography: Local and Regional Patterns
 - GPY 204.1(.2) Demographics and Culture
 - GPY 313.1(.2) Geomorphology
 - GPY 316.1(.2) Map and Air Photo Interpretation
 - GPY 336.1(.2) Principles of Cartography

At least two (2.0) credits from:

- GPY 305.1(.2) The Oceans: A Physical Geography
- GPY 333.1(.2) Biogeography
- GPY 343.1(.2) Weather and Climate
- GPY 413.1(.2) Coastal Geomorphology
- GPY 423.1(.2) Glacial Geomorphology
- GPY 433.1(.2) Fluvial Geomorphology
- GPY 443.1(.2) Natural Hazards

One (1.0) additional geography credit from Group B or C courses.

b. Geology/Geography Honors Program (Bachelor of Science: Honors)

In addition to the above requirements, honors students must complete:

- i. GEO 550.0 Honors Project or GPY 526.0 Honors Research Project;
- ii. one (1.0) additional geology credit from the list of geology courses under "Double Major and Honors" above; and
- iii. GPY 406.1(.2) Seminar in Theoretical Geography and GPY 416.1(.2) Seminar in Applied Geography.

In the honors Bachelor of Science geology/geography program, topics for honors projects should be approved by both Departments and may be carried out in either Department.

5. Geology/Business Studies Combined Programs

The Department of Geology and the Faculty of Commerce offer a double major/honors science degree combining a major/honors program in geology with a major program of business studies in the Faculty of Commerce.

This program offers Bachelor of Science major and Bachelor of Science honors degrees, under the general requirements of the Faculty of Science. For a combined major degree, students will be required to take a minimum of seven (7.0) credits in the Faculty of Commerce in addition to at least six (6.0) Geology credits. In the honors program, a thesis on a field interrelating the two disciplines will be required. Students enrolled in the combined geology/business studies major/honors may also pursue a co-op option in this dual program. The program appeals to geology students with an interest in the business-related aspects of their major.

The geology/business studies major program requires a minimum grade of C in all geology and commerce courses while the geology/business studies honors program requires (a) a minimum grade of C in all geology and commerce courses; and (b) a minimum quality point average of 3.00 in these same courses.

The following courses are required for the Geology/Business Studies Major (B.Sc.)

a. Commerce Faculty Requirements (total 7.0 credits)

- ACC 241.1(.2) Introductory Accounting I
- ACC 242.1(.2) Introductory Accounting II
- ACC 332.1(.2) Planning and Control
- 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
- FIN 360.1(.2) Business Finance I
- FIN 361.1(.2) Business Finance II
- MGT 281.1(.2) Introduction to Business Management
- MGT 383.1(.2) Organizational Behaviour I
- MGT 384.1(.2) Organizational Behaviour II
- MGT 489.1(.2) Strategic Management
- MKT 270.1(.2) Introduction to Marketing

b. Geology Requirements (at least 6.0 credits)

- GEO 200.0 Introduction to Earth Science
- GEO 208.1(.2) Environmental Geology
- GEO 300.1(.2) Field Methods
- GEO 301.1(.2) Mineralogy
- GEO 305.1(.2) Geophysics
- GEO 312.1(.2) Igneous Petrology
- GEO 323.1(.2) Palaeontology: History of Life
- GEO 325.1(.2) Sediments and Depositional Environments
- GEO 340.1(.2) Surface and Groundwater Hydrology
- GEO 350.1(.2) Environmental Geoscience Issues
- GEO 373.1(.2) Geomorphology
- GEO 413.1(.2) Structural Geology
- GEO 414.1(.2) Global Geology
- GEO 441.1(.2) Mineral Resources
- GEO 442.1(.2) Economic Mineral Deposits
- GEO 453.1(.2) Principles of Geochemistry
- GEO 454.1(.2) Applied Geochemistry
- GEO 466.1(.2) Petroleum Geology

c. Other Requirements

- i. EGL 205.1(.2) and one half (0.5) credit in humanities.
- ii. MAT requirement (see Faculty of Science regulations, Section 3 of this *Academic Calendar*).
- iii. two (2.0) science elective credits other than Geology, e.g., Biology, Psychology, Chemistry, Physics, and Mathematics excluding MAT 207.1(.2), and BIO 308.1(.2).
- iv. one-half (0.5) elective credit in statistics that covers probability theory including MAT 207.1(.2), MSC 207.1(.2), GPY 326.1(.2), BIO 308.1(.2) and ECO 303.1(.2).
- v. one (1.0) credit from Faculty of Arts' offering including GPY 326.1(.2) and ECO 303.1(.2).
- vi. one and one-half (1.5) elective credits from any faculty.

Notes: (i) Students must take FIN 361.1(.2), MKT 270.1(.2) and MGT 384.1(.2) before registering for MGT 489.1(.2). The other prerequisites for this course are waived for students in this combined program.

(ii) Students must register no later than the beginning of Year 2 in the science program and will be under the general requirements of the Faculty of Science.

In addition to the above requirements, Geology/Business Studies Honors students must complete GEO 550.0 Honors Project as one of the Geology requirements.

6. Cooperative Education Programs

a. 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*.

b. 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*.

c. Combined Co-operative Education Program in General Business Studies/Geology

The students enrolled in the combined geology/business studies major/honors programs may pursue a Co-op option in these dual programs. Applications to and completion of this combined option is the same as those for other Science Co-op major/honors programs.

7. Minor in Geology

It is possible to combine a minor in Geology with a major in another discipline within or outside the Faculty of Science. A minor in Geology requires five (5.0) credits, including GEO 202.1(.2) or GEO 200.0; no more than two (2.0) credits below the 300-level can be counted toward the minor in Geology.

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.

202.1(.2) Planet Earth: Atlantic Canada Perspective

Why is the Atlantic Ocean getting wider? Where in Atlantic Canada are there remnants of huge volcanic explosions and lava flows? How did a fault as big as the San Andreas cut through Nova Scotia? This course will provide an understanding of the Earth and the processes which affect it, using examples drawn from the geology of our region. You will study plate tectonics, learn to recognize and interpret Earth materials, and understand their impact on Atlantic Canada. Sections of this course may be offered via world-wide web. This course is intended mainly for non-science students including those in Atlantic Canada Studies.

203.1(.2) Earth History: Atlantic Canada Perspective

What was the origin of the Earth and when did life develop? When did dinosaurs and other fossil groups appear in our region, and how did they disappear? How have ancient deserts, rivers, oceans, and ice ages influenced our landscape? You will trace four billion years of Earth history using examples from the rock and fossil record of Atlantic Canada. Sections of this course may be offered via world-wide web. This course is intended mainly for non-science students including those in Atlantic Canada Studies.

206.1(.2) Global Change

This course examines global changes in the Earth's crust, oceans, biota and atmosphere caused by natural processes and human activity. Topics covered include the reconstruction of ancient environments, some of which were dramatically changed by meteorite impacts, volcanic activity and glaciation, and the evaluation of accelerating environmental change caused by phenomena such as ozone depletion and greenhouse gas emissions.

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 harvested. 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.

208.1(.2) Environmental Geology: Atlantic Canada Perspective

This course examines geological principles that lie behind environmental problems facing society. Topics considered may include geological hazards such as volcanoes, earthquakes, slope instability, and pollution and waste disposal, as well as energy and mineral resources, and the quality of water. The course will include examples of environmental geology in the Atlantic Provinces.

210.1(.2) Dinosaurs and Their World

This course focuses on dinosaurs and the world in which they flourished for 135 million years, up to the time of their (near) extinction. Spectacular and sometimes controversial evidence indicates how dinosaurs and other creatures lived, died, and were preserved as fossils over geological time. Nova Scotian dinosaur localities will receive special attention in the class.

300.1(.2) Field Methods

Prerequisite: GEO 200.0 attendance at Field Camp, held prior to the semester, and permission of instructor.

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 field work. 1 semester.

301.1(.2) Mineralogy

Prerequisite: GEO 200.0 (which may be taken concurrently).

An 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.

302.1(2) Optical Mineralogy

Prerequisite: GEO 301.1(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.

305.1(2) Geophysics

Prerequisite: GEO 200.0

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.

312.1(2) Igneous Petrology

Prerequisite: GEO 302.1(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.

313.1(2) Metamorphic Petrology

Prerequisite: GEO 302.1(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.

323.1(2) Palaeontology: History of Life

Prerequisite: one of GEO 200.0, GEO 202.1(2), GEO 208.1(2); or BIO 201.1(2) and 202.1(2); or GPY 213.1(2).

An account of the 3800 million-year history of life on Earth, including theories of the origin of life, and modes of preservation of organisms as fossils, and the practical use of fossils for geological age, paleogeographic, and paleoenvironment determinations. The course covers the expression of biological evolution in the fossil record, and the major patterns and crises in the history of life, such as mass extinctions. Although the main focus is on the paleontology of invertebrate macrofossils, there will be some coverage of fossil plants, vertebrates, and microfossils.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

**325.1(2) Sediments and Depositional Environments
[GPY 325.1(2)]**

Prerequisite: GEO 200.0 or GPY 213.1(2).

Weathering and the origin of sedimentary materials. Introduction to sediments and sedimentary rocks. Processes of sedimentation and the origin of sedimentary structures. Interpretation of clastic and carbonate

sedimentary rocks in the light of comparison with modern environments in non-marine, marginal marine, and marine settings.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

326.1(2) Sedimentary Petrology and Stratigraphy

Prerequisite: GEO 302.1(2) and 325.1(2) (which may be taken concurrently).

Composition, provenance, and diagenesis of clastic sedimentary rocks, including conglomerates, sandstones and shales. Components and diagenesis of the main classes of non-clastic sedimentary rocks including carbonates, evaporites, siliceous and iron-rich sediments. Stratigraphy: correlation and the definition of stratigraphic units in outcrop and in the subsurface. Unconformities, sequences, sea-level change, and the interpretation of the stratigraphic record.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

330.1(2) Introduction to Micropalaeontology

Prerequisite: GEO 321.1(2).

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****335.1(2) Paleobotany**

Prerequisite: GEO 200.0 or BIO 200.0.

The course will trace the two billion year fossil record of plant evolution in the context of adaptation to Earth's changing geography and climate through geologic time. Particular attention will be paid to the development of terrestrial ecosystems in the Paleozoic and to the world class fossil sites of Nova Scotia, including the paleobotany of coal. Ontogeny and paleoecology will be linked as will taphonomy and paleoenvironments. Laboratories will acquaint the student with the taxonomy of fossil floras, their modes of preservation and practical problems in the interpretation of their record.

Classes 3 hrs. and lab 3 hrs. a week. Field trips. 1 semester.

340.1(2) Surface and Groundwater Hydrology

Prerequisite: one of GEO 200.0, 202.1(2), 208.1(2); or GPY 213.1(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.

350.1(2) Environmental Geoscience Issues

Prerequisite: GEO 200.0.

This course examines issues such as risk assessment and prediction of natural hazards (earthquakes, volcanoes, floods); pathways and sinks of pollutants in surface and groundwaters; the environmental implications of

global change, industrial planning and environmental impacts; geological criteria in the environmental assessment process; the roles of monitoring historical assessment and modelling in environmental problems.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

373.1(.2) Geomorphology

[GPY 313.1(.2)]

Prerequisite: GEO 200.0 or GPY 213.1(.2).

The 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, soil analysis, sediment analysis and geomorphological mapping.

Classes 2 hrs. and lab 2 hrs. a week. 1 semester. Some field work may be required.

400.0 International Field Camp

Prerequisite: GEO 200.0, 300.1(.2), 301.1(.2), 325.1(.2), and permission of Department.

Emphasis is placed on highlighting the geological heritage shared by Canada, USA and Mexico. In practical terms, this course will acquaint the student with modern methods of structural, stratigraphic, petrologic and/or geophysical analysis. After mastering these skills, students will undertake an independent mapping project. Students may be required to travel at their own expense to USA and Mexico.

Field camp.

413.1(.2) Structural Geology

Prerequisite: GEO 300.1(.2), or permission of instructor.

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.

429.1(.2) Cross-listed as BIO 429.1(.2) Quaternary Palynology and the History of Vegetation

Students taking this course for a geology credit must have a credit for GEO 200.0.

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) Economic Mineral Deposits

Prerequisite: GEO 441.1(.2).

The course examines the geology, mineralogy, economic geology and origin of major types of metallic and some non-metallic 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.

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: GEO 200.0.

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) or GPY 313.1(2).

476.1(2) Cross-listed as GPY 413.1(2) Coastal Geomorphology**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.



The third of the three cairns unveiled to mark the University's historic roots. It was unveiled on 5 June 2003 and stands in front of the McNally Building.

Global Business Management (GBM)

This program is administered by the Department of Management.

Committee on Global Business Management

P. Fitzgerald, , Co-ordinator	Management
T. Charles	Finance and Management Science
H. Das	Management
A. Mukhopadhyay	Economics
H. Ogden	Marketing
J. Power	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, Italians and Australians, Chinese and Malaysians learn to work together, to communicate effectively, and to manage as a global team, with synergy instead of conflict.

If 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 205.1(.2) 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/CIS 225.1(.2) Introduction to Computers
 Language elective one (1.0) credit (Chinese, French, German, Japanese, or Spanish)
 One half (0.5) non-Commerce elective

Year 2

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
 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)

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 one (1.0) credit (same language as Year 1 elective)
 Geographic elective one (1.0) credit [see note (a) below]
 One half (0.5) credit fee 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 one (1.0) credit [see note (b) below]
 Cognate elective one (1.0) credit [see note (c) below]
 Free electives (1.5)

Notes: (a) Elective must be selected from the approved lists below for one of the following regions: Africa, Americas, Asia, or Europe.

(b) 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.

c. Elective must be selected from the geographic area lists or cognate elective list below. If ECO 306.1(.2), ECO 310.1(.2), ECO 312.1(.2), ECO 315.1(.2), ECO 365.1(.2), ECO 406.1(.2), ECO 410.1(.2), ECO 412.1(.2), ECO 413.1(.2), or ECO 414.1(.2) 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.

d. 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 Co-ordinator.

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

HIS 316.1(.2) Africa in the 19th Century: Intrusion and Conquest
 HIS 317.1(.2) Africa in the 20th Century: Colonialism and Independence
 HIS 322.0 South Africa
 HIS 326.1(.2) History of West Africa: 1600-1960
 POL 327.0 Government and Politics in the Middle East
 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
 HIS 251.0 The United States: 1865 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 330.0 American Social and Intellectual History
 HIS 333.0 History of Canada in the 20th Century
 HIS 361.1(.2) Canadian Business History, 1820-1867
 HIS 362.1(.2) Canadian Business History, 1867-1930
 HIS 375.0 Modern Latin America
 HIS 385.0 [IDS 385.0] Aspects of Global History: One Earth, Many Worlds
 IDS 421.1(.2) Special Topics in Development Studies
 MGT 493.1(.2) Business-Government Relations in Canada
 POL 315.0 Canadian Foreign Policy
 POL 440.0 Canadian-American Relations since World War II
 REL 355.1(.2) Religion and Social Issues in Canada
 SPA 305.0 Contemporary Spanish Society

Asia

ANT 311.1(.2) Ethnology: Melanesia
 ANT 312.1(.2) Ethnology: Polynesia and Micronesia
 ANT 326.1(.2) Ethnology: East Asia
 ANT 327.1(.2) Ethnology: Japan
 ASN 300.1(.2) Multidisciplinary Study of Asia
 ASN 303.1(.2) Contemporary Japan: Institutions and Culture
 ASN 400.1(.2) Seminar in Asian Studies
 ASN 450.1(.2) China, Eternal and Transforming: Travel and Study
 GPY 330.0 Geography of China
 GPY 360.1(.2) Geography of Japan
 HIS 209.0 East Asia: From Prehistory to Modern Times
 HIS 222.1(.2) History of Asia: East Asia
 HIS 323.0 China Before 1800
 HIS 325.0 Asian Crossroads: Southeast Asia, 1600 to Independence
 HIS 342.0 Survey of Modern China
 HIS 354.1(.2) Traditional Japan: History and Culture
 HIS 381.1(.2) East Asia and the West to 1800
 HIS 382.1(.2) East Asia and the West Since 1801
 HIS 385.0 [IDS 385.0] Aspects of Global History: One Earth, Many Worlds
 HIS 394.1(.2) The Emergence of Modern Korea
 HIS 396.1(.2) China and Japan in the 20th Century: Ideology, State and Society
 IDS 420.1(.2) Special Topics in Development Studies
 POL 314.1(.2) Development Practice: Politics of Developing Areas
 REL 323.1(.2) The Islamic Religious Tradition
 REL 326.1(.2) The Hindu Religious Tradition
 REL 327.1(.2) The Buddhist Religious Tradition
 REL 337.1(.2) Hindu and Buddhist Religious Art
 REL 340.1(.2) Japanese Religious Traditions
 REL 345.1(.2) Chinese Religious Traditions
 SOC 447.1(.2) [WMS 447.1(.2)] Work and the Empowerment of Women in India

Europe

FRE 310.1(.2) Introduction to French Culture
 GER 304.0 German Culture and Civilization
 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 339.0 Russia and the U.S.S.R. Since 1917
 HIS 385.0 [IDS 385.0] Aspects of Global History: One Earth, Many Worlds

Cognate Electives

ANT 301.1(.2) Nature of Culture
 ANT 303.1(.2) [WMS 303.1(.2)] Women: A Cultural Perspective
 ANT 304.1(.2) Egalitarian Societies
 ANT 305.1(.2) Chiefdoms
 ANT 307.1(.2) Applied Anthropology
 ANT 308.1(.2) Anthropology and Development
 ANT 309.1(.2) Peasant Society and Culture
 ANT 336.1(.2) Foundations of Psychological Anthropology

ANT 337.1(.2) The Individual and Culture in Psychological Anthropology
 ANT 338.1(.2) Medicine as Culture
 ANT 339.1(.2) Medicine in Culture
 ANT 475.1(.2) Seminar in Anthropology
 ECO 310.1(.2) Development Economics
 ECO 312.1(.2) History of Economic Thought
 ECO 315.1(.2) Comparative Economic Systems
 ECO 365.1(.2) International Economic Issues
 ECO 410.1(.2) Issues in Economic Development
 ECO 412.1(.2) History of Modern Economic Thought
 ECO 413.1(.2) International Macroeconomics and Finance
 ECO 414.1(.2) International Trade
 GPY 204.1(.2) Demographic and Culture
 GPY 214.1(.2) Environment and Livelihood
 GPY 302.0 The Geography of World Affairs
 IDS 401.1(.2) Seminar in Development Studies: Conceptual Foundation
 IDS 402.1(.2) Seminar in Development Studies: Contemporary Issues
 MGT 301.1(.2) Work and Alienation
 PHI 310.0 Political Philosophy
 PHI 317.1(.2) Philosophy of Economics
 PHI 325.1(.2) Ethical Issues in International Development
 POL 305.0 International Relations
 POL 321.1(.2) International Organization
 POL 322.1(.2) Global Political Economy
 POL 330.0 Introduction to Public Administration
 POL 418.0 International Law
 POL 445.0 Introduction to Public Policy
 REL 202.0 Introduction to Comparative Religion: When Great Religions Meet
 REL 341.1(.2) Violence and Non-Violent: East and West
 REL 347.1(.2) Ecology and Religion
 SOC 385.1(.2) [IDS 485.1(.2)] Problems of Development
 SOC 386.1(.2) [IDS 386.1(.2)] Sociology of Developing Societies
 SOC 387.1(.2) [WMS 387.1(.2)] Women and Development
 SOC 391.0 Rural Sociology
 SOC 420.0 Comparative Regional Development
 SOC 422.1(.2) [IDS 422.1(.2); WMS 422.1(.2)] Gender and Development: Theory and Method
 SOC 423.1(.2) [IDS 423.1(.2); WMS 423.1(.2)] Gender and Development: Policy and Practice
 SOC 425.0 Corporate Power and the World Economy

*Courses may be taken at other institutions subject to the approval of the Program Co-ordinator and the Dean of Commerce.

History (HIS)

Chairperson, Associate Professor
Professors

M. Vance
E. Haigh, C. Howell,
J. Morrison, J. Reid,
R. Twomey
W. Mills, T. Stretton
N. Neatby, R. Nunes,
B Sewell, L. Warner
R. Perrins
O. Carrigan,
J. MacCormack

Associate Professors
Assistant Professors

Adjunct Professor
Professors Emeriti

Departmental Policy

To obtain a **major** in history, students must complete at least seven (7.0) history credits, as follows:

- a. one (1.0) but no more than two (2.0) credits at the 200 level;
- b. History 370.1(.2);
- c. the remaining credits must be at the 300 or 400 level or above; and
- d. at least of one (1.0) credit at the 500 level.

The program of each student must be approved by the Department.

All prospective honors students should refer to the section of this *Calendar* pertaining to honors degrees and apply to the Registrar for enrolment in that program after their first year at the University.

For an **honors** degree, students must satisfy the requirements of the major program. They must also complete one (1.0) additional history credit at the 300-400 level; two (2.0) additional credits at the 500 level, and HIS 500.0 (the honors essay). The program of each student must be approved by the Department.

All students majoring in history are strongly advised to take two (2.0) credits in a foreign language. In the case of students concentrating in Canadian history, French is specified as the recommended language.

To **minor** in History, students are expected to follow the general requirements for a minor as outlined in Faculty of Arts' Regulation 8, Section 3 of this *Calendar*.

To obtain a **concentration** in History in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits), a minimum of four (4.0) credits in HIS is required; also a minimum cumulative quality point average of 2.00. Further details are available from the chairperson.

Graduate students should refer to the material entitled "Master of Arts in History Degree", Section 3 of this *Calendar*.

General Course Description

- a. History courses numbered at the 200 level are survey courses open to students with no university credits in the discipline. They are normally lecture courses; some combine lectures with small tutorial group meetings.
- b. In order to enrol in a 300 or 400 level course, a student must have one (1.0) history credit, or at least five (5.0) university credits, or the permission of the Chairperson. 300 and 400-level courses are usually structured to include both lectures and seminars.

c. History courses at the 500 level are normally seminar courses designed for advanced work by history majors and honors students in Year 2 and above, and for Master of Arts students.

d. With regard to 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.

201.0 Civilization in the West

This course is designed to explore the origins and development of the characteristic political, legal, and cultural institutions of Western Civilization and its impact on other cultures.

203.0 The Twentieth Century

An 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 into 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.

222.1(.2) History of Asia: East Asia

This introductory course explores historical change and social transformation in China, Japan, Korea, and Vietnam from antiquity to the present. Emphasizing especially the Chinese and Japanese experiences, the class will examine some of the more salient social, intellectual, political, and economic features apparent in the heritage of these societies as well as some of the ways each society has influenced the others.

Note: No previous study of East Asia is required but students who have taken History 209.0 cannot receive another credit for this course.

223.1(2) History of Asia: South and Southeast Asia

This course will provide an introduction to South and Southeast Asia from 1000 A.D. to the present. Major topics will include the spread of Islam, Buddhism, Hinduism and Christianity throughout the region, trade and commerce on the Indian Ocean, insular and mainland political developments, intra and inter regional relations (East and West), the ebb and flow of European imperialism and the impact of decolonization.

Note: No previous study of East Asia is required but students who have taken History 209.0 cannot receive another credit for this course.

252.1(.2) Canada to Confederation

This course will examine early Canadian history from the time of the first native-European contact up to 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.

253.1(.2) Canada: Confederation to the Present

This course will examine 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.

254.1.(2) The United States to 1877

This course deals 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; and 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.

255.1.(2) The United States: 1865 to the Present

This course will examine American history from 1865 through the present day. Designed primarily as an introduction to the history of the United States, it will acquaint students with important events and documents of the American past. Lectures will explore such themes as industrialization, urbanization, immigration, foreign relations, and the ascendancy of the American nation-state, as well as the effects of race, class, gender, ethnicity, and region upon these larger processes. Using a wide variety of primary texts from the Civil War through the present day - including political speeches, films, and advertisements - students will explore modern American history and consider how historians have come to understand the past.

In order to enrol in the following courses a student must have one (1.0) history credit, or at least five (5.0) university credits, or the permission of the Chairperson.

303.0 Tudor and Stuart Britain

This lecture and seminar course provides a broad survey of the social, economic, cultural and political histories of Britain between 1485 and 1714, with a focus on original sources and images and how historians interpret them. It will examine how this small island nation on the fringes of Europe began its transformation into a dominant world power, while experiencing religious reformation, invasion threats, civil war, republican experiment, the execution of one king and the forced exile of another. It will also examine some of the remarkable personalities of the age, from Mary Tudor and Queen Elizabeth to Christopher Marlowe, William Shakespeare, and Isaac Newton.

304.0 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 History of Russia and the U.S.S.R.

An introductory survey beginning with Kievan Rus and ending with the collapse of the Soviet Union in 1991.

316.1.(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) 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 acquired in the 'Scramble'. The course will also study the reactions of Africans to colonialism and the factors which led to independence.

318.0 The United States in the 20th Century

Designed for students with a credit in a university course in history, this course will look closely at the past American century. It will consider the rise of the United States as a political and cultural force, and examine such

large-scale movements as progressivism, the Cold War, the ascendancy of the Presidency, national government, and mass culture. It will closely examine the relationship of individuals' lived experience to these larger social and political movements.

319.0 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 The Atlantic Provinces and New England

An examination of the relationship of New England and the Atlantic Provinces from a comparative point of view. This course deals with political, economic and religious trends common to the experience of both communities.

322.0 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.

326.1.(2) History of West Africa: 1600 to 1960**327.1.(2) France and New France**

What brought the French to North America? This course examines French perception of the New World, their shifting attitudes to the indigenous peoples, to the opportunities for settlement, to religious conversion, and to commercial exploitation. Through the examples of Acadia and New France, the course will examine the issues of culture and identify how these settlements forged identities, as well as how these colonies influenced ideas back in France.

331.0 The Era of the American Revolution

A course on the American Revolution and its aftermath, especially the major social, political, and intellectual transformations of the era. Emphasis on the radicalism of the American Revolution and on major problems of historical interpretation.

336.1.(2) Revolution, Reform and Respectability: Britain 1688 - 1870

The period examined in this course is not only associated with the creation of the British state, but also its rise, by the middle of the 19th century, to the leading world power. Yet recent literature has demonstrated that this development was accompanied by profound social and economic transformations that were highly contested. In order to appreciate the nature of these struggles, this course will cover such diverse topics as the impact of overseas expansion, warfare, agricultural and industrial change, migration, political radicalism, and 19th-century Victorian morality.

340.0 History of the Atlantic Provinces

Commencing 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 in adapting traditional British models of government, settlement, and society to a colonial region.

346.1.(2) Black Heritage in Maritime Canada

This course will provide an historical survey of the Black population in Maritime Canada, its origins, socio-economic conditions, and evolution to the present.

350.0 Cross-listed as CLA 303.0 History of Greece**351.0 Cross-listed as CLA 304.0 History of Rome**

354.1.(2) Japan Before 1800

After a brief survey of prehistoric Japan, this course explores two formative eras in Japanese history: the era of courtly (or aristocratic) society and the era of the samurai (warriors). Although the course proceeds chronologically, in order to provide students with a more analytical understanding the course employs a topical approach, considering political, economic, intellectual, and social issues in each era. No previous study of Japan is required.

355.1.(2) The Rise and Fall of Imperial Japan: 1800-1945

After a brief survey of the Tokugawa Shogunate, emphasizing those features of society most pertinent to the ensuing era, this course examines the recreation of Japanese society between the Meiji Restoration and the Pacific War. While chronological, in order to provide students with a more analytical understanding of the era the course follows a topical approach, considering political, economic, intellectual, and social issues. No previous study of Japan is required, though either History 209.0 or 354.1.(2) are recommended.

356.1.(2) Japan Since 1945

Considered against a background of key prewar trends, this course examines the history of Japanese society since the Pacific War. The course employs a topical approach, exploring political, economic, intellectual, and social issues in order to provide students with a more analytical understanding of contemporary Japan. No previous study of Japan is required, though either History 209.0 or 355.1.(2) are recommended.

357.0 Cross-listed as CLA 307.0 Ancient Rome in Film, Fiction, Fact**358.1.(2) Mughal to Modern India: 500 Years of History**

India is the largest democracy in the world. Over the last half millennium its history has been marked by architectural and intellectual achievement, conquest (notably by Islam and the West), the rise of nationalism in the late 19th century and the early 20th century, and the passive resistance campaign by Gandhi that led eventually to independence and freedom. This course will explore these and other aspects of Indian history and provide an understanding of India's role in the modern world.

360.0 A History of Women in the Western World [WMS 360.0]

A 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.

363.1.(2) Asian Crossroads: Southeast Asia, 1500-1900

Southeast Asia, consisting of Burma, Cambodia, Laos, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam has been a confluence of commercial trade and cultural influences for centuries. This course examines the interaction of indigenous kingdoms and societies within the area and beyond with India, China, and Europe. It traces the rise of European imperialism and colonization in the area.

364.1.(2) Modern Southeast Asia: Colonialism to Independence

The course examines the vibrant and at times turbulent states of Southeast Asia. It examines European conquest and Asian resistance and looks in detail at European colonial administration and American and Japanese expansion. Finally, it accounts for the rise of various nationalist movements and the resultant nation-states in the region.

366.1.(2) History of Scotland, 1560 to the Present

Golf, whisky, Mary Queen of Scots, sober Presbyterians, Bonnie Prince Charlie, Highland clearances, Edinburgh's neo-classical "New Town", Dundee's Jutopolis, Glasgow's Old Firm football rivalry, North Sea Oil,

Trade Union radicals and Scottish Nationalists. These contemporary associations with Scotland draw heavily on the historical experience of the inhabitants of the Kingdom and, despite their sanitized form, highlight the tensions which characterize that past. This course will provide a survey of Scottish history from the early modern period to the present with a particular focus on how these competing Scottish identities were developed and institutionalized.

370.1.(2) 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.

Note: Students who have already earned credit for HIS 400.0 will not be permitted to enrol in this course.

373.1.(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.

375.0 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) Special Topics: U.S. History

Further details are available from the Chairperson of the Department.

377.1.(2)-379.1.(2) Selected Topics in History

The subject matter of particular half-credit 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) China Before 1800

This course explores roughly four millennia of Chinese history, from the distant origins of Chinese society to its zenith during the Qing Dynasty. Divided into three eras - Ancient, Early Imperial, and Late Imperial - the class follows a topical approach that considers the dynamics of political, economic, intellectual, and social change within each era. No previous study of China is required.

382.1.(2) China in Revolution: 1800-1949

This course explores the collapse of imperial China and the ensuing efforts to renew Chinese society. While chronological, the course follows a topical approach, considering the dynamics of political, economic, intellectual, and social change within the Late Imperial and Republican eras. No previous study of China is required, but History 209.0 and 381.1.(2) are recommended.

383.1.(2) China Since 1949

This course explores Chinese history (including that of Taiwan) since the founding of the People's Republic in light of preceding trends and events. The course follows a topical approach examining the dynamics of political, economic, intellectual, and social change so as to provide students with a

more analytical understanding of contemporary China. No previous study of China is required, but History 209.0 and 382.1(.2) are strongly recommended.

394.1(.2) The Emergence of Modern Korea

After a brief survey of the rise of Korean civilization since antiquity, this course examines three turbulent eras in Korean history: (1) the long era of gradual change during the Yi dynasty that culminated in confrontation with imperialist powers, (2) the half-century of Japanese domination, and (3) the era of civil war and continuing division. Although the course proceeds chronologically, in order to provide students with a more analytical understanding the course employs a topical approach, considering political, economic, intellectual, and social issues in each era. No previous study of Asian History is required.

395.0 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.

397.1(.2) The Lingering Death of Imperial Britain, 1870-1982

Since the late nineteenth century, many Britons have been preoccupied with notions of imperial, economic, and social decline. This course will test the validity of these perceptions by surveying important changes which have affected British society from the height of British imperial power to the Falklands War. Some topics to be explored are: “new imperialism”, the women’s suffrage movement, decolonization, deindustrialization, mass unemployment, Labour socialism, Thatcherism, the impact of two world wars, and the rise of Celtic (Irish, Scottish, and Welsh) nationalisms.

401.0 American Social and Intellectual History

A study of the major social and intellectual developments in American history from the colonial era to the present. Special emphasis on the relationship of ideas to society and social change, on slavery and racism, and on class, ideology, and society, especially in the 18th and 19th centuries.

402.1(.2) Aspects of Global History: One Earth, Many Worlds [IDS 403.1(.2)]

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.

403.1(.2) The Invention of Canada

Canada has been imagined in a number of ways throughout its history: as a storehouse of staples commodities, a raucous frontier society, a mature colony that evolved peacefully into nationhood, as a bicultural and/or multicultural society, a land of regions, a cultural appendage of the United States, and as a peacemaking middle power. How have these images been created, and whose interests did they serve? To what extent have these popular representations incorporated an appreciation of class, ethnic, gender, and racial differences? This course will look at the invention of national images from the 17th to the 20th century, using anthropological, architectural, literary, artistic, and cultural sources.

405.1(.2) Society and Culture in Early Modern Europe

This course investigates the people, culture, and regions of Europe (England, France, Germany, Italy, Spain, Holland) from the Renaissance to the late 17th century. Through topics such as witchcraft and literacy,

students explore a variety of primary sources including painting, architecture, woodcuts, popular ballads, and literature.

406.1(.2) Ideas and Politics in Early Modern Europe

This course explores the literature and thought of the Renaissance and Reformation through to the 17th century. Through visual images as well as writers such as Machiavelli, Castiglione, Erasmus, Marguerite de Navarre, Luther, Calvin or Montaigne, students will trace the developments of ideas about human nature and politics.

407.1(.2) British Colonization, 1500 - 1900

The legacy of British Colonization is apparent around the globe. Migrants from the British Isles established settlements in places as far afield as Ulster, Nova Scotia, Jamaica, South Africa, New South Wales and Vancouver Island. This course will examine some of the consequences of this activity for both the receiving and sending societies by sampling the literature on such diverse topics as encounter with indigenous peoples, dispossession, settlement schemes, pioneering experience and colonial literatures.

408.1(.2) British Imperialism, 1760 to the Present

British Imperialism, as both an ideal and a practice, can be traced to the eighteenth century, with its heyday often located in the late nineteenth-century. Its legacy is readily apparent today in statues of Queen Victoria that litter former imperial cities from New Delhi to Melbourne. This course will trace the origin and development of British Imperialism and will focus in particular on recent literature that highlights its impact on such diverse subjects as the development of architecture, sporting culture, attitudes toward the environment, notions of masculinity and perceptions of race.

410.1(.2) The Scientific Revolution

Between Copernicus and the end of the 17th century, the foundations of our contemporary scientific outlook were established in western Europe. The course will examine the cultural and intellectual background of the scientific revolution. It will look at its social and institutional consequences.

411.1(.2) The Enlightenment

The intellectual, social, and philosophical milieu of the Western world was profoundly altered in the latter part of the 17th and in the 18th centuries. Largely in response to the scientific revolution, European political and social assumptions and foundations were questioned. The re-examination led to a profound reshaping of the foundations of European institutions. The course will examine this process and its development.

412.1(.2) The History of Biology

Prerequisite: a university course in history or biology.

A survey of the development and evolution of ideas concerning the nature of living things, their form and function, and their relationships from the ancient world to the twentieth century.

413.1(.2) The History of Environmental Sciences

Prerequisite: a university course in history or one of the sciences.

How we perceive the world depends upon our culture. The course is a study of western attitudes to nature from antiquity to the present. It will examine the development of the fields of geography, geology, natural history, evolutionary theory, and ecology.

415.0 The Western Family: Sex, Marriage and Love, 1400-1800

This course considers the origins of the modern family and traces the shifts in attitude to celibacy, marriage, sexuality, adultery, love, childhood and death from Renaissance Italy through to the Reformation, the rise of the romantic novel, the French Revolution, and the Industrial Revolution.

Students will read or be exposed to primary sources such as letters, ballads, diaries, paintings, woodcuts, and literature.

420.1.(2) History of Sport and Leisure in the Modern World

This course looks at the development of sport in the modern world, its increasing specialization and bureaucratization, its commercialization, its ritualistic character, and its connection to issues of race, gender, ethnicity, and class. Although the focus is international, the course will draw heavily on Canadian, American, and British examples.

421.1.(2) History of Health and Medicine in the Modern World

This course looks at the concern for healthy bodies and minds in the 19th and 20th centuries. It will address a range of issues including the professionalization of medicine and psychiatry, attitudes towards the body, sexuality and gender identity, health care and the state, and alternatives to orthodox medicine.

450.1.(2) Film and History

Increasingly, historians are having to make use of moving images as source material for their histories, while much of the public perception of the past is being shaped by documentaries and feature films. The first half of this course will examine the strengths and weaknesses of using moving images as historical documents and the second-half will examine the role of film in interpreting the past. The goal of the course is to provide students with the ability to critically “employ” and “read” film for the discipline of History. Films for study will be selected by the instructor.

490.1.(2) - 496.1.(2); 497.0 - 499.0 Thematic Selected Topics

The subject matter of these courses will be announced from time to time. They will focus on particular historical themes and/or specific chronological periods. The topics to be examined will be determined by the course instructor.

500 level courses are designed for the advanced study of history. Students should have extensive university experience before they attempt these courses.

500.0 The Honors Seminar

Prerequisite: admission to the final year of the honors program.

As part of this seminar, history honors students are required to submit and defend a substantial essay to be selected and prepared in conjunction with a faculty advisor.

508.1.(2) Seminar in Intellectual and Cultural History

This interdisciplinary seminar will adopt a thematic approach in order to explore ideas in history across borders, cultures and centuries. Intended for students in their graduating year, topics for exploration may include the media, the law, liberty, the family, gender and/or sexuality.

510.0 (610.0) Global History: History and Historians

Prerequisite: HIS 385.0 or a history major with senior 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.H. McNeill, L. S. Stavrianos, and A. Toynbee who have taken a global approach to the study of the past.

HIS 511.0 (611.0) Seminar in East Asian History

Prerequisite: a full credit (1.0) in East Asian History.

This seminar course will examine selected topics in the history of East Asia. The topics to be studied will be chosen by the instructor. As part of the course requirements, students will write a major research paper and present it to the seminar.

515.0 (615.0) Seminar in Historiography

Prerequisite: senior 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’s milieu on the writing of history.

519.0 (619.0) 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 (620.0) 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 (622.0) Seminar in American History

A seminar on American history from the origins to the present emphasizing major problems in historical interpretation. Special consideration to the Revolutionary and Early Republican eras, the American and transatlantic radical traditions, and the Age of Revolutions.

524.0 (624.0) The U.S.S.R.

Prerequisite: at least 1.0 credit in European history.

A seminar covering the period 1917 - 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.

525.0 (625.0) Seminar in Irish and Scottish Emigration (IRS 525.0)

This course provides students with an understanding of the relationship between emigration and social change within Ireland and Scotland, from about 1700 to 1900. The focus will be on emigration to North America, but within that broad subject area students will examine the issues of religion, crime, popular protest, gender roles, agricultural change, and industrialization in relation to the movement overseas. The seminar will meet on a weekly basis and students will be expected to give presentations based on assigned readings and one monograph analysis. In addition, a formal presentation of a research paper will be required in the second semester.

535.0 (635.0) Northeastern North America, 1480-1720

Prerequisite: enrolment in the 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 Newfoundland, Acadia/Nova Scotia, New England, New York and Canada.

560.0 (660.0) 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 enrol in ACS 660.0.

570.1(.2) - 574.1(.2); 575.0 [670.1(.2) - 674.1(.2); 675.0] Selected Topics Seminar

As with other selected topics courses, the subject matter of these seminars will be announced from time to time. Topics to be examined will be determined by the course instructor. Seminars concentrate on group discussion and the presentation of research papers.

589.1(.2) [689.1(.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 ideas 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.

595.1(.2)-599.1(.2) [695.1(.2)-699.1(.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.

650.0 Seminar in Advanced Historiography

Prerequisite: graduate standing.

This seminar will examine selected contemporary historiographical issues and guide candidates in the preparation of their thesis proposals.

690.0 Thesis Research

Prerequisite: graduate standing.

Students will engage in the research and writing of a thesis under the supervision of a thesis committee. The student must satisfy the supervisor 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. Students will publicly defend their thesis, following which a final grade will be determined by the thesis committee.

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.

Image Studies (IST)

Currently, students are not being admitted to the minor or concentration program in Image Studies.

International Development Studies (IDS)

Program Committee on International Development Studies

J. Chamard, Co-ordinator	Management
G. Cameron, Student Advisor	International Development Studies
A.M. Dalton	Religious Studies
S. Dansereau	International Development Studies
M. Doucet	Political Science
E. Keeble	Political Science
L. Kowalchuk	Sociology and Criminology
D. Leclaire	International Activities
H. McGee	Anthropology
R. McKinnell	International Development Studies
J. Morrison	History
N. Sharif	Economics
E. Tastsoglou	Sociology and Criminology
H. Veltmeyer	Sociology and Criminology
S. Wein	Philosophy
Adjunct Professors	C. Amaratunga, D. Black, J. Kirk, R. McKinnell, A. O'Malley, J. Parpart, P. Scholey, 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 gender 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. Students are advised to take a four year (i.e., advanced major) Bachelor of Arts and/or pursue a double major or honors.

A program in International Development Studies can be taken towards a 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 the IDS 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

- a. appropriate first year (200 level) courses including, as per Faculty of Arts regulation 3d, at least one (1.0) credit from the following social science electives: ANT 200.0, ECO 201.1(.2)/202.1(.2), POL 200.0, SOC 210.1(.2), and either SOC 211.1(.2) or 212.1(.2), as appropriate.
- b. the equivalent of six (6.0) credits approved for the program, of which:
 - (i) two (2.0) must be IDS 301.1(.2), 302.1(.2), 401.1(.2) and 402.1(.2);
 - (ii) at least one and one half (1.5) credits, selected from ECO 310.1(.2), and any additional half (0.5) credit in Economics; or POL 314.1(.2), and any other additional half (0.5) credit in Political Science; SOC 385.1(.2), or SOC 386.1(.2). All these courses must be at the 300 level or above and must be from the list of IDS Approved Courses.

- (iii) the remaining two and one half (2.5) credits selected from courses with a clear International Development component and involving at least two different established disciplines within International Development Studies; and
- (iv) five (5.0) credits selected from the 300 level or above, with at least one (1.0) additional credit at the 400 level exclusive of IDS 401.1(.2) and 402.1(.2).

The Minor Program

The equivalent of four (4.0) credits approved for the program, of which:

- a. one (1.0) credit selected from IDS 301.1(.2) and 302.1(.2);
- b. at least one (1.0) credit selected from ECO 310.1(.2), POL 314.1(.2), SOC 385.1(.2), or SOC 386.1(.2);
- c. the remaining two (2.0) credits must be courses with a clear International Development component and must involve at least two different established disciplines within International Development Studies at the 300-level or above and must be from the list of IDS Approved Courses.

The Concentration Program

To obtain a concentration in International Development Studies in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits), a minimum of four (4.0) credits in IDS is required; also a minimum cumulative quality point average of 2.00.

The Honors Program

For the Bachelor of Arts (Honors) degree in International Development Studies, all students must complete no fewer than ten (10.0) credits from the International Development Studies Program, of which:

- a. three (3.0) credits must be IDS 301.1(.2), 302.1(.2), 401.1(.2), 402.1(.2), and 500.0;
- b. two and one half (2.5) credits selected from ECO 310.1(.2), and any additional half (0.5) credit in Economics; or POL 314.1(.2), and any other additional half (0.5) credit in Political Science; SOC 385.1(.2), or SOC 386.1(.2). All these courses must be at the 300 level or above and must be from the list of IDS Approved Courses.
- c. the remaining four and one half (4.5) credits selected from courses with a clear International Development component and involving at least two different established disciplines within International Development Studies and a specialized regional concentration in one of the developing areas of Africa, Asia, or Latin America.
- d. eight (8.0) credits must be at the 300 level or above, with at least one (1.0) additional credit at the 400 level exclusive of IDS 401.1(.2) and 402.1(.2); and
- 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)

Note: Many of these courses have prerequisites which students should note very carefully.

Anthropology

301.1(.2)	Nature of Culture
302.1(.2)	Social Organization
304.1(.2)	Egalitarian Societies
305.1(.2)	Chiefdoms
309.1(.2)	Peasant Society and Culture
311.1(.2)	Ethnology: Melanesia
312.1(.2)	Ethnology: Polynesia and Micronesia
326.1(.2)	Ethnology: East Asia

Asian Studies

300.1(.2)	Multidisciplinary Study of Asia
305.1(.2)	Contemporary China: Institutions and Culture
400.1(.2)	Seminar in Asian Studies

Economics

307.1(.2)	Money and Banking
*310.1(.2)	Development Economics
312.1(.2)	History of Economic Thought
315.1(.2)	Comparative Economic Systems
323.1(.2)	Economies in Transition
341.1(.2)	Introduction to Labor Economics
349.1(.2)	Women and the Economy
363.1(.2)	Environmental Economics
364.1(.2)	Cost-Benefit Analysis
413.1(.2)	International Macroeconomics and Finance
414.1(.2)	International Trade

English

460.0	Post Colonial Literature: An Overview
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Finance and Management Science

476.1(.2)	International Financial Management
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Geography

204.1(.2)	Demographics and Culture
214.1(.2)	Environment and Livelihood
302.0	The Geography of World Affairs
311.1(.2)	Rural Geography
339.0	Cultural Geographies
414.1(.2)	Integrated Coastal Zone Management

History

208.0	Global History: 1450 to the Present
222.1(.2)	History of Asia: East Asia
223.1(.2)	History of Asia: South and Southeast Asia
316.1(.2)	Africa in the 19th Century, Intrusion and Conquest
317.1(.2)	Africa in the 20th Century, Colonialism and Independence
322.0	South Africa
358.1(.2)	History of Modern India
363.1(.2)	Asian Crossroads: Southeast Asia (1500-1900)
364.1(.2)	Modern Southeast Asia: Colonialism to Independence
375.0	Modern Latin America
381.1(.2)	China Before 1800
382.1(.2)	China in Revolution: 1800-1949
383.1(.2)	China Since 1949
402.1(.2)	Aspects of Global History: One Earth, Many Worlds
511.0	Seminar in East Asian History

Management

488.1(.2)	International Business Management
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Marketing

375.1(.2)	International Marketing
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Modern Languages and Classics:

Arabic

307.1(.2)	Arabic Language Skills I
308.1(.2)	Arabic Language Skills II

Chinese

200.0	Modern Chinese
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Spanish

202.1(.2)	Spanish: Aspects of Latin American Culture and Civilization
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Philosophy

325.1(.2)	Ethical Issues in International Development
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Political Science

305.0	International Relations
314.1(.2)	Politics of Developing Areas
315.0	Canadian Foreign Policy
321.1(.2)	International Organizations
322.1(.2)	Global Political Economy
418.0	International Law
491.1(.2)	Global Social Movements
553.0	International Studies Seminar

Religious Studies

†Courses at the 400 level are for majors in Religious Studies only.	
312.1(.2) [412.1(.2)]†	Theologies of Liberation
341.1(.2) [441.1(.2)]†	Violence and Non-Violence: East and West
348.1(.2) [448.1(.2)]†	Religion and Ecological Issues in the Developing World

Sociology

319.0	Reform and Revolution in Latin America
331.1(.2)	Modernization and Aging
333.0	Social Movements
*385.1(.2)	Problems of Development
*386.1(.2)	Sociology of Developing Societies
387.1(.2)	Women and Development
391.0	Rural Sociology
419.0	Sociology of the Environment
422.1(.2)	Gender and Development: Theory and Method
423.1(.2)	Gender and Development: Policy and Practice
425.0	Corporate Power and the World Economy
448.1(.2)	Feminist Analysis
481.0	Gender, Ethnicity, and Migration
482.1(.2)	Gender and International Migration

301.1(.2) Development Theory: Introduction to Development Studies

Prerequisite: one of ANT 200.0, ECO 201.1(.2)/202.1(.2), POL 200.0, SOC 200.0, or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

This course introduces students to the scope and nature of development studies. It emphasizes theoretical and analytical approaches to the understanding of development, explores the history of the development

experience and examines specific problems that confront the developing world. The course draws on insights from various disciplines to explain changing conditions and societies in the developing world.

302.1.(2) Development Practice: Introduction to Development Studies

Prerequisite: IDS 301.1.(2).

This course explores the formulation of development policy and how it is applied to development problems through public action. It examines the role of the state and other actors who contribute to the policy-making process and analyzes policy successes and failures.

325.1.(2) Cross-listed as PHI 325.1.(2) Ethical Issues in International Development**348.1.(2) Cross-listed as REL 348.1.(2) Religion and Ecological Issues in the Developing World****386.1.(2) Cross-listed as SOC 386.1.(2) Sociology of Developing Societies****401.1.(2) Seminar in Development Studies: Conceptual Foundations**

Prerequisite: IDS 300.0, or IDS 301.1.(2) and 302.1.(2).

This course examines key issues in developing countries such as industrialization and rural change. It explores theoretical and policy questions and analyzes various case studies. In consultation with the instructor, students will select topics, plan research and make presentations related to a research project.

402.1.(2) Seminar in Development Studies: Contemporary Issues

Prerequisite: IDS 401.1.(2).

In this course students will research and analyze a selected problem of development in Africa, Asia or Latin America and the Caribbean. Students will read and discuss a common body of readings, present their research findings, including theoretical and policy implications, and write a major research paper.

403.1.(2) Cross-listed as HIS 402.1.(2) Aspects of Global History: One Earth, Many Worlds**420.1.(2) Special Topics in Development Studies**

Prerequisite: IDS 300.0, or IDS 301.1.(2) and 302.1.(2).

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, or IDS 301.1.(2) and 302.1.(2).

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) Gender and Development: Theory and Method**423.1.(2) [623.1.(2)] Cross-listed as SOC 423.1.(2) Gender and Development: Policy and Practice****424.1.(2) Research Methodology**

Basic techniques of research design and qualitative analysis are reviewed and applied to a selected range of development problems.

Note: See IDS 520.1.(2) described below. Students are advised that they can only obtain a credit for this course at one of the two levels at which it is offered.

450.0; 451.0; 452.1.(2)-459.1.(2) Directed Study

Prerequisite: IDS 300.0, or IDS 301.1.(2) and 302.1.(2), 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.

460.1.(2) Field Research in Development

See IDS 660.1.(2) described below.

461.1.(2) South East Asia: Contemporary Development Issues

Prerequisite: IDS 301.1.(2)/302.1.(2) or permission of instructor.

This course explores development issues in the context of South East Asia, focusing on the nation-state and its development strategies, as well as issues of economic and social development. Issues include the emergence of the Newly-Industrializing Countries, the impact of the Asian financial crisis and globalization. The course will begin from the perspective of common colonial roots and identify the current sub-regional models of development. The course will explore current alternative approaches articulated by Asian scholars and grassroots organizations. (This course is cross-listed with Asian studies at the undergraduate level.)

462.1.(2) Sub-Saharan Africa: Contemporary Development Issues

Prerequisite: IDS 301.1.(2)/302.1.(2) or permission of instructor.

This course explores development issues specific to Sub-Saharan Africa, focusing on the nation-state and its development strategies, as well as issues of economic and social development. Issues include the impact of structural adjustment, efforts toward political democratization and the ongoing presence of traditional forms of social organization. The overall objective is to present the dynamic nature of the current policy debates as they are being articulated and challenged by a variety of actors in the region, including African scholars and grassroots organizations.

463.1.(2) Latin American: Contemporary Development Issues

Prerequisite: IDS 301.1.(2)/302.1.(2) or permission of instructor.

This course explores development issues in the context of Latin America, focusing on the nation-state and its development strategies, as well as issues of economic and social development. Issues include the impact of globalization and liberalization, efforts towards political democratization including the role of popular organizations and alternative approaches articulated by Latin American scholars and grassroots organizations. Sub-regional differences will be identified.

464.1.(2) Popular Approaches to Development

Prerequisite: IDS 301.1.(2)/302.1.(2) or permission of instructor.

This course will examine theoretical debates surrounding the current alternative and people-centered approaches to development and social change. Emphasis is on alternatives articulated by a new civil society or the new social movements in the South including NGOs, community and grassroots organizations, labor groups and others. Issues range from new practices in development based on increased participation by subaltern groups to the more fundamental challenges to national and international structures as they struggle for greater democratization as groups work for economic and political decentralization.

470.1(.2) [570.1(.2)] Environment and Development

Prerequisite: IDS 300.0, or IDS 301.1(.2) and 302.1(.2), 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.

481.0 Cross-listed as SOC 481.0 Gender, Ethnicity and Migration**485.1(.2) Cross-listed as SOC 385.1(.2) Problems of Development****500.0 Honors Essay in Development Studies**

Prerequisite: IDS 401.1(.2) and 402.1(.2).

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*.

Graduate courses are available to students registered in the Master degree program. Other students must have approval of the IDS Coordinator.

520.1(.2) Research Methodology

See IDS 424.1(.2) described above.

525.1(.2) [625.1(.2)] Cross-listed as PHI 525.1(.2) [625.1(.2)] International Justice**530.1(.2) [630.1(.2)] Contemporary Development Planning**

See IDS 630.1(.2) described below.

540.1(.2)-542.1(.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.

543.1(.2) Conceptual Foundations

See IDS 401.1(.2): Dynamics of Development: Framework of Analysis and Practice, described above.

544.1(.2) Issues of Theory and Practice

See IDS 402.1(.2): Dynamics of Development: Critical Issues, described above.

545.1(.2) The Project Cycle

Description available from the Coordinator of the IDS Program.

550.1(.2)-555.1(.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.

560.1(.2) [660.1(.2)] Field Research in Development

See IDS 660.1(.2) described below.

561.1(.2) South East Asia: Contemporary Development Issues

See IDS 461.1(.2) described above.

562.1(.2) Sub-Saharan Africa: Contemporary Development Issues

See IDS 462.1(.2) described above.

563.1(.2) Latin America: Contemporary Development Issues

See IDS 463.1(.2) described above.

564.1(.2) Popular Approaches to Development

See IDS 464.1(.2) described above.

570.1(.2) Environment and Development

See IDS 470.1(.2) described above.

601.1(.2) Dynamics of Development: Framework of Analysis and Practice

This seminar course will review and critically examine the major schools of development thinking and modes of practice. The basic assumptions, central concepts, theoretical propositions and public policy or political implications of each approach will be critically examined and placed in their historical context.

602.1(.2) Dynamics of Development: Critical Issues

Prerequisite: IDS 601.1(2).

The major theoretical and policy debates that surround major problems of development will be critically examined. With reference to issues addressed in IDS 601.1(.2) each student will review the literature and present a seminar on the critical issues involved in a defined field or area of research. If possible this field should be defined with reference to a proposed thesis to be submitted in completion of requirements for the degree.

620.1(.2) Advanced Research Methods

This course in advanced qualitative research methods is designed to provide students with the tools needed to select the appropriate methodological approach and techniques for the study of development issues. From time to time, depending on the student interest and faculty availability, this course will treat issues raised in historical, comparative, observational and other methods, as well as general questions of research design, data gathering and analysis.

622.1(.2) Cross-listed as SOC 422.1(.2) Gender and Development: Theory and Method**623.1(.2) Cross-listed as SOC 423.1(.2) Gender and Development: Policy and Practice****630.1(.2) Contemporary Development Planning****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 IDS Co-ordinator.

661.1.(2) South East Asia: Contemporary Development Issues

See IDS 461.1.(2) described above.

662.1.(2) Sub-Saharan Africa: Contemporary Development Issues

See IDS 462.1.(2) described above.

663.1.(2) Latin America: Contemporary Development Issues

See IDS 463.1.(2) described above.

664.1.(2) Popular Approaches to Development

See IDS 464.1.(2) described above.

690.0 Thesis Research

Prerequisite: enrolment in the Master of Arts, International Development Studies.

Students will engage in the research and writing of a thesis under supervision of a thesis committee. The student must satisfy the supervisor 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. Students will publicly defend their thesis, following which a final grade will be determined by the thesis committee.

692.1.(2) Proposal Design

Students will develop skills in proposal writing, using different models available, ranging from the practical to the applied. Students will prepare a proposal to be used either for their Thesis or Applied Research Project. The proposal will consist either of a full research proposal (in the case of the Thesis Option); or a critical review of the literature and project design (in the case of the Applied Research Project). The proposal will be defended publicly prior to undertaking either the Thesis or Applied Research Project.

693.1.(2) Applied Project

Each student is required to complete a project, under the supervision of a faculty member, involving real-world application of the theory and techniques of international development. The project will be undertaken in conjunction with an agency (governmental, NGO, or other) working in the field of international development, whether located overseas or in Canada. The project can take one of two forms: (a) applied research, in which the student, in consultation with her/his supervisor and the relevant agency, designs and carries out a suitable research activity, or (b) a practicum, in which the student organizes and enters into a work placement within the agency. In either case, the student prepares a suitable proposal beforehand, including a letter of invitation by the host agency, engages in the research or practicum for a period of at least 3 months, and writes a final report on the research results or the practicum experience, particularly in reference to expectations in the proposal. Evaluation will be based on the final report, and an evaluation by a responsible person in the host agency.

Irish Studies (IRS)

C. Byrne, Professor
P. Ó Siadhail, Associate Professor

Co-ordinator
The Thomas D'Arcy McGee
Chair

The Major Program

To obtain a major in Irish Studies, seven (7.0) credits are required, including:

IRS 201.1(.2) An Introduction to Modern Irish

IRS 202.1(.2) Modern Irish Language

IRS 325.1(.2) Intermediate Irish I

IRS 326.1(.2) Intermediate Irish II

IRS 400.0 Irish Studies Seminar

Plus four (4.0) credits, two (2.0) of which must be at the 400 level and approved by the Co-ordinator of Irish studies.

The Minor Program

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

Plus three (3.0) credits approved by the Coordinator of Irish Studies.

The Concentration Program

To obtain a concentration in Irish Studies in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits), a minimum of four (4.0) credits in IRS is required; also a minimum cumulative quality point average of 2.00. Further details are available from the co-ordinator.

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.

203.1(.2) Scottish Gaelic - Introductory I

This course gives the student an introduction to the structure and use of Scottish Gaelic in a Nova Scotia context. Topics covered include grammar and conversation basics, traditional and new Gaelic songs, and conversation aimed at specific social occasions and locations.

204.1(.2) Scottish Gaelic - Introductory II

Prerequisite: IRS 203.1(.2)

This course gives the student a continuation of the introduction to the structure and use of Scottish Gaelic in a Nova Scotia context. Topics covered include grammar and conversation basics, traditional and new Gaelic songs, and conversation aimed at specific occasions and locations.

215.1(.2) Ireland: An Introduction

This course provides a general survey of the history and culture of Ireland. Students will examine a range of areas, including literature, language, politics and history. While this course will be of interest to those who intend to concentrate on Irish Studies at Major and Minor levels, it will also be of benefit to others who wish to broaden their understanding and knowledge of Ireland past and present.

216.1(.2) Ireland: Culture and Society

This course, which complements IRS 215.1(.2), seeks to expand students' understanding of the complexity of the Irish experience. Areas covered in this course include: Women in Ireland; the Irish abroad (with special emphasis on the Irish in Canada); Ireland in a European context; the Celtic Tiger; Northern Ireland in the post-Belfast Agreement period; sport in Ireland; and the Irish and film. This survey is aimed at both Irish Studies students and those who have a general interest in Ireland.

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, 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) and 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.

327.1.(2) Scottish Gaelic - Intermediate I

Prerequisite: IRS 203.1.(2) and 204.1.(2).

This course gives the student an opportunity to advance from the introductory level in a structured environment. Topics covered include a review of grammar and conversation basics. Time will be spent on composition of short stories, translation of written and recorded Gaelic, traditional and new Gaelic songs, and poetry and conversation aimed at specific social occasions and locations.

328.1.(2) Scottish Gaelic - Intermediate II

Prerequisite: IRS 327.1.(2) or equivalent.

This course gives the student an opportunity to advance from the introductory level in a structured environment. Topics covered include a review of grammar and conversation basics. Time will be spent on composition of short stories, translation of written and recorded Gaelic, traditional and new Gaelic songs, and poetry and conversation aimed at specific social occasions and locations.

334.0 Cross-listed as EGL 334.0 The Literature of Modern Ireland**340.1.(2) The Early Christian Church in Britain and Ireland**

[ANT 341.1.(2)]

This course proposes to examine the development of Christianity in the British Isles from its inception in Roman Britain, through the establishment of a 'Celtic' church in Wales, Scotland and Northern England, to the eventual conversion of the people of Ireland. The course will focus on the historical and archaeological remains which made up the early-Christian landscape of the 4th through the 11th centuries.

346.1.(2) A Sociolinguistic History of Ireland

[LIN 346.1.(2)]

Prerequisite: at least one (1.0) credit in Irish Studies, Linguistics, English, or History.

This course charts the history and development of language in Ireland from earliest times to the present. Students learn about the origins and growth of Irish, the influence on it of Latin, Norse and English, and the emergence of Hiberno-English. A series of texts which demonstrate the changing linguistic landscape of Ireland and the interrelationship of languages are considered.

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.

379.1.(2) Irish Material Culture

[ANT 379.1.(2); GPY 379.1.(2)]

This course introduces students to the landscapes of Ireland. Areas under investigation will include land use, field patterns, housing, fishing, rural industry, and household and agricultural implements. Attention will be given to the different circumstances and life styles of people living in

offshore islands and in isolated farms, villages, towns and cities. Consideration will also be given to efforts to preserve the past in the form of folk museums.

380.1.(2) Scottish Material Culture

This course introduces students to the landscapes of Scotland past and present. Areas under investigation will include land use, agricultural patterns, housing, rural and urban industry, and household and agricultural implements. Attention will be given to the changing circumstances and life styles of people living in the highlands and islands and their conditions after moving to the lowlands, towns and cities. The importance of the contribution of the sea routes between Scotland and Ireland to material culture will also be examined. Consideration will also be given to the efforts to preserve the past in the form of museums.

388.1.(2) Cross-listed as HIS 388.1.(2) Early Celtic Britain**389.1.(2) Cross-listed as HIS 389.1.(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 politics of repeal, the Home Rule movement, the growth of extreme republicanism and the transition to independence will be included.

391.1.(2) Cross-listed as GPY 390.1.(2) Geography of Ireland**395.0 Cross-listed as HIS 395.0 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 a 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".

408.1.(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.

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) Special Topics in Irish Studies

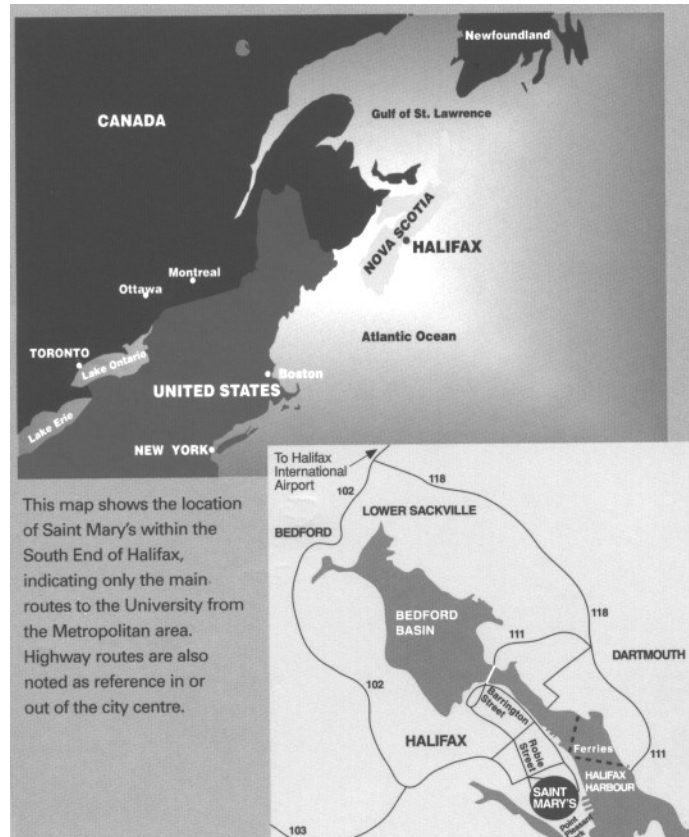
Prerequisite: permission of Coordinator of the Irish Studies Program.

This course will investigate in depth a specific topic or set of topics in Irish Studies. The topic will vary from year to year.

452.1.(2) Cross-listed as EGL 452.1.(2) Irish Drama to the End of the 19th Century**453.2.(1) Cross-listed as EGL 453.1.(2) Irish Drama in the 20th Century****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 18th 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 Tomás*.

457.0 Cross-listed as POL 457.0 Politics and Government in Ireland**525.0 Cross-listed as HIS 525.0 Seminar in Irish and Scottish Immigration**

The location of Saint Mary's University.

Linguistics (LIN)

Programs and courses in Linguistics are administered by the Department of Modern Languages and Classics.

Co-ordinators

Saint Mary's University:	R. Cospers, Sociology
Dalhousie University:	N. Diaz-Insens, Spanish
Mount Saint Vincent University:	M.-L. Tarpent, Modern Languages

Committee on Linguistics

Saint Mary's University:

R. Cospers	Sociology, Co-ordinator of Linguistics
E. Asp	English
E. Enns	Dean of Arts; Modern Languages and Classics
K. Flikeid	Modern Languages and Classics
M. Harry	English
M. Sargent	Teaching English as a Second Language
P. Ó Siadhail	Irish Studies
V. Tobin	Modern Languages and Classics

Halifax Interuniversity Program in Linguistics

Three Halifax area universities - Saint Mary's, Dalhousie, and Mount Saint Vincent - offer honors, majors and minors in linguistics in undergraduate degree programs. Students enrolled in a linguistics program can take classes from the three universities to fulfil degree requirements.

An undergraduate degree in linguistics provides opportunities to study the formal, functional and systemic nature of language and languages as both social and cognitive phenomena. Although a coherent discipline in its own right, Linguistics has cognate relationships with a wide array of disciplines, suggested by the interdisciplinary nature of many of the courses in the program. Faculty members from Anthropology, English, French, Russian, Political Science, Philosophy, Psychology, Sociology, and other disciplines participate.

Certificate in Linguistics

The Certificate in Linguistics provides an opportunity to explore the structure and function of languages and how their systematic nature makes human communication possible. Although it is an independent discipline of long standing, Linguistics has strong relationships with other areas of study, and can enhance students' understanding of these. The Certificate in Linguistics is designed to provide a foundation in Linguistics to complement study in related fields, such as language teaching, anthropology, sociology, business, and computer studies.

The program consists of five (5.0) credits and is intended primarily for students already holding degrees in any discipline.

Admission

Admission to the certificate program requires a formal application for admission. Students taking the certificate while completing a bachelor's degree must obtain official approval of the Co-ordinator for Linguistics. Students majoring in Linguistics at Saint Mary's University are **not** eligible for this program. Two and one half courses (2.5) of the five (5.0) credits must be completed at Saint Mary's University.

Program Courses

All students are required to take LIN 200.0. They must also select one (1.0) credit from the following courses: LIN 310.1(.2); LIN 320.1(.2); LIN 330.1(.2); LIN 340.1(.2). The remaining three (3.0) credits are to be selected from the interdepartment offerings listed in the linguistics section of this *Calendar* (subsection d). One of these courses must be at the 400 level. With the permission of the Co-ordinator for Linguistics, one of these three courses can be other than a Linguistics course. Typically, this course would be one suitable for the student's objectives, such as an upper level class in a second language, formal logic or computing studies.

Requirements

A minimum cumulative quality point average of 2.00 in this Certificate Program is required for graduation.

Teacher Certification

In September 2002, the Provincial Department of Education's Minister's Advisory Committee on Teacher Certification approved the Certificate in Linguistics program in general for teacher certification purposes. Any teacher interested in pursuing this certificate program for teacher certification purposes **must** request individual approval of this Program from the Registrar - Teacher Certification **prior** to registration in this program.

Honors in Linguistics

An honors degree requires a minimum of ten (10.0) credits including:

- a. The following three (3.0) credits:
 LIN 200.0 Introduction to Linguistics
 LIN 310.1(.2) Phonology
 LIN 320.1(.2) Morphology
 LIN 330.1(.2) Syntax
 LIN 340.1(.2) Semantics
- b. One (1.0) credit selected with the advice of the program co-ordinator
- c. One (1.0) credit at or above the 300 level in a language other than English
- d. Five (5.0) credits selected from those specified in subsection (d) below for the major

Major in Linguistics

A major in linguistics requires a minimum of six (6.0) credits, including:

- a. One (1.0) credit: Introduction to Linguistics. [either LIN 200.0 at Saint Mary's University or FREN 3020R at Dalhousie University or LING 2251.1(.2)/2252.1(.2) at Mount Saint Vincent University]
- b. One (1.0) credit from the following Saint Mary's University half credit courses:
 LIN 310.1(.2) Phonology
 LIN 320.1(.2) Morphology
 LIN 330.1(.2) Syntax
 LIN 340.1(.2) Semantics

- c. One (1.0) credit selected with the advice of the program co-ordinator
- d. Three (3.0) credits from approved courses at Saint Mary's University as well as courses described in the *Academic Calendars* of Dalhousie and Mount Saint Vincent Universities.

Saint Mary's University courses:

- ANT 290.1.(2) Introduction to Human Communication
 ANT 395.1.(2) Language Use and Issues in Northern Canada
 ANT 391.1.(2) Linguistic Anthropology
 ANT 392.1.(2) Language, Culture and Society
 ANT 491.1.(2) Ethnography of Communication
 ANT 492.1.(2) Anthropological Analysis of Linguistic Communities
 EGL 308.1.(2) Development of English Prose Style from 1500
 EGL 311.1.(2) Modern English Language
 EGL 312.1.(2) Modern English Language in Canada
 EGL 326.1.(2) Language and Gender
 EGL 402.0 History of the English Language
 EGL 427.1.(2) Language, Gender, and Power
 EGL 490.0 Discourse Analysis
 FRE 305.1.(2) Acadian Language and Culture
 FRE 320.1.(2) French Phonetics
 FRE 340.1.(2) Linguistic Study of French
 FRE 440.1.(2) Canadian French: Sociolinguistic Perspectives
 IRS 346.1.(2) A Sociolinguistic History of Ireland
 LIN 410.1.(2) Directed Reading in Linguistics I
 LIN 411.1.(2) Directed Reading in Linguistics II
 LIN 431.1.(2) Special Topics in Linguistics I
 LIN 432.1.(2) Special Topics in Linguistics II
 PHI 402.1.(2) Philosophy of Language: Meaning
 PHI 403.1.(2) Philosophy of Language: Speech Acts
 SOC 388.1.(2) Language Change and Social Change
 SOC 339.1.(2) The Sociology of Language
 SOC 366.1.(2) Field Methods in Sociolinguistics I
 SOC 367.1.(2) Field Methods in Sociolinguistics II
 SOC 417.0 Seminar on Endangered Languages

Minor in Linguistics

A minor in linguistics requires a minimum of four (4.0) credits in linguistics including:

- a. LIN 200.0, Introduction to Linguistics
- b. three (3.0) credits at the 300 level or above at Saint Mary's University or the 2000 level or above at Mount Saint Vincent and Dalhousie Universities. The appropriate Saint Mary's courses are delineated above in subsections (b) and (d) of the requirements for the major. Dalhousie and Mount Saint Vincent Universities courses are described in the *Academic Calendars* of those institutions. The program co-ordinators can also be consulted.

200.0 Introduction to Linguistic Analysis

Natural languages are systematic and this course will examine how this fact makes human communication possible. An 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.

305.1.(2) Cross-listed as FRE 305.1.(2) Acadian Language and Culture

308.1.(2) Cross-listed as EGL 308.1.(2) Development of English Prose Style

310.1.(2) Phonology

Prerequisite: LIN 200.0 or another 1.0 credit from the listed courses in Linguistics.

Phonology is the study of the sound patterns of language. The course describes how speech sounds are produced and perceived, how they are used in spoken language, and how we can record them using symbolic notation. The universal principles by which sounds are organized in language through phonological rule systems are examined, as well as the processes which account for language-specific diversity.

311.1.(2) Cross-listed as EGL 311.1.(2) Modern English Language

312.1.(2) Cross-listed as EGL 312.1.(2) Modern English Language in Canada

320.1.(2) Morphology

Prerequisite: LIN 200.0 or another 1.0 credit from the listed courses in Linguistics.

Morphology is the study of word formation and structure. The course examines how words are made up of smaller, meaningful elements. Processes of word formation such as derivation and compounding are analyzed: how roots combine with other elements to form larger units. The course also discusses the manner in which morphology relates to the other components of language: phonology, the lexicon and syntax.

321.1.(2) Cross-listed as FRE 320.1.(2) French Phonetics

326.1.(2) Cross-listed as EGL 326.1.(2) Language and Gender

330.1.(2) Syntax

Prerequisite: LIN 200.0 or another 1.0 credit from the listed courses in Linguistics.

Syntax is the study of sentence structure: how words are organized into larger meaningful units. The course examines the nature of speakers' underlying knowledge of the rules for combining words into higher-order structures. Students will learn how complex sentence patterns can be reduced to simpler forms and will be introduced to the principles of transformation which form part of linguistic competence. The fundamental similarities in sentence patterning among different languages will be addressed.

338.1.(2) Cross-listed as SOC 338.1.(2) Language Change and Social Change

339.1.(2) Cross-listed as SOC 339.1.(2) The Sociology of Language

340.1.(2) Semantics

Prerequisite: LIN 200.0 or another 1.0 credit from the listed courses in Linguistics.

This course analyzes how words and sentences convey meaning in language. Students will learn how lexical items can be represented in terms of their semantic components and how interrelated groups of words form semantic fields. At the sentence level, grammatical, pragmatic and logical aspects of meaning are introduced. The course also explores idiomatic expressions and the ubiquity of metaphor.

341.1.(2) Cross-listed as FRE 340.1.(2) Linguistic Study of French

346.1.(2) Cross-listed as IRS 346.1.(2) A Sociolinguistic History of Ireland

366.1(.2) Cross-listed as SOC 366.1(.2) Field Methods in Sociolinguistics I

367.1(.2) Cross-listed as SOC 367.1(.2) Field Methods in Sociolinguistics II

391.1(.2) Cross-listed as ANT 391.1(.2) Introduction to Linguistics Anthropology

392.1(.2) Cross-listed as ANT 392.1(.2) Language, Culture and Society

395.1(.2) Cross-listed as ANT 395.1(.2) Language Use and Issues in Northern Canada

402.0 Cross-listed as EGL 402.0 History of the English Language

410.1(.2) Directed Readings in Linguistics I

411.1(.2) Directed Readings in Linguistics II

These courses provide the opportunity to study a particular subject(s) in detail. They are designed to examine at an advanced level topics not covered in other linguistics courses or in courses cross-listed as linguistics courses, or to allow for a different approach to the study of topics already covered in other courses.

417.0 Cross-listed as SOC 417.0 Seminar in Endangered Languages

427.1(.2) Cross-listed as EGL 427.1(.2) Language, Gender and Power

431.1(.2) - 432.1(.2) Special Topics in Linguistics

Prerequisite: at least 3.0 credits in Linguistics

This course allows students to study a special topic at an advanced level. Such topics will either (a) not be covered by other LIN courses or (b) handle the subject matter in alternative models.

Seminar: 3 hrs. a week. 1 semester.

440.1(.2) Cross-listed as FRE 440.1(.2) Canadian French: Sociolinguistic Perspective

490.0 Cross-listed as EGL 490.0 Discourse Analysis

491.1(.2) Cross-listed as ANT 491.1(.2) Ethnography of Communication

492.1(.2) Cross-listed as ANT 492.1(.2) Anthropological Analysis of Linguistic Communities

500.0 Honors Thesis

Prerequisite: honors standing in Linguistics.

Supervised preparation of a significant research paper for honors students in linguistics.



International Students at the English as a Second Language (ESL) Centre on Campus.

Management (MGT)

Chairperson, Professor	K. Kelloway
Professors	J. Badawi, J. Chamard, H. Das, P. Fitzgerald, A. Mills, S. Pendse, T. Wagar
Associate Professors	C. Driscoll, L. Haiven, R. Summers, D. Wicks
Assistant Professors	E. Farrell, J. Haiven, J. Mills
Adjunct Professor	B. Miller
Professor Emeritus	H. Schwind
Lecturer	C. Holmvall

The Department of Management offers four programs for majors:

- * Global Business Management
- * Human Resource Management and Industrial Relations
- * Management
- * Small Business and Entrepreneurship

Details on the requirements for each of these majors are delineated in the following paragraphs.

In September 1998 a Certificate in Human Resource Management with a Management option (HRM) or a Psychology/Management option (HRP) was introduced. Details for those two programs are found in Section 4: Continuing Education of this *Academic Calendar*.

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 Major

Year 3

ACC 332.1(.2) Planning and Control
 ECO 340.1(.2) Human Resource Economics
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 MGT 385.1(.2) Human Resource Management
 MGT 386.1(.2) Industrial Relations
 one (1.0) free elective credit
 one (1.0) free elective credit - see note below

Year 4

MGT 483.1(.2) Interpersonal Behavior I
 MGT 485.1(.2) Wage and Salary Administration
 MGT 486.1(.2) Personnel Staffing, Training and Development
 MGT 489.1(.2) Strategic Management
 two (2.0) non-Commerce elective credits
 one (1.0) free elective credit

Management Major

Year 3

ACC 332.1(.2) Planning and Control
 FIN 360.1(.2) Business Finance I
 FIN 361.1(.2) Business Finance II
 MSC 317.1(.2) Operations Management
 one half (0.5) Accounting elective credit
 one (1.0) Marketing elective credit
 one half (0.5) Commerce elective credit
 one (1.0) free elective credit

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 elective credits
 one half (0.5) free elective credit

Small Business and Entrepreneurship

Major

Year 3

ACC 332.1(.2) Planning and Control
 FIN 360.1(.2) Business Finance I
 MGT 389.1(.2) Structuring the Start-Up
 MGT 494.1(.2) Entrepreneurship: Theories and Concepts
 One (1.0) non-Commerce elective
 One and one-half (1.5) free electives

Year 4

MGT 380.1(.2) Family Business
 MGT 487.1(.2) Small Business Opportunities
 MGT 489.1(.2) Strategic Management
 MGT 495.1(.2) Small Business Performance Improvement
 One (1.0) credit non-Commerce elective
 Two (2.0) credits free electives

Global Business Management Major

Complete details on this major are described in the "Global Business Management" entry in Section 5 of this *Calendar*. This program is administered by the Department of Management.

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) credit Modern Language (except English) elective [Chinese, French, German, Italian, Japanese, or Spanish] - see note (i) below
 One (1.0) credit Geographic elective - see note (ii) below
 One-half (0.5) credit 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) credit Modern Language (except English) elective [Chinese, French, German, Italian, Japanese, or Spanish] - see note (iii) below
 One (1.0) credit Geographic elective - see note (iv) below
 One (1.0) credit International elective - see note (v) below
 One-half (0.5) credit free elective

Notes: (i) If the non-Commerce elective in Year 1 was a Modern Language, then this requirement can be replaced with one (1.0) free elective.

(ii) One (1.0) elective 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 (1.0) credit elective 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 (1.0) credit elective 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 315.1(.2), ECO 413.1(.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 Co-ordinator.
- (vii) Notwithstanding the course substitutions possible in (i), (v), and (vi) above, all students must complete at least three (3.0) non-Commerce electives.

281.1(.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.

301.1(.2) Work and Alienation

380.1(.2) Family Business

Prerequisite: at least ten (10.0) university credits.

This course is designed to examine the dynamics of family-owned businesses which have problems peculiar to the family orientation. It covers issues such as income vs. inheritance, management and promotion, bringing non-family resources to the firm, harvest and sell out strategies, succession, deciding to join the family firm, establishing credibility as a daughter or son, stages of family business growth, and strategic planning.

Classes 1 1/2 hrs. and seminars 1 1/2 hrs. a week. 1 semester.

383.1(.2) Micro Organizational Behavior

Prerequisite: MGT 281.1(.2).

This course focuses on the micro aspects of organizational behavior. 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.

384.1(.2) Macro Organizational Behavior

Prerequisite: MGT 281.1(.2).

This course focuses on macro aspects of organizational behavior. 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.

385.1(.2) Human Resource Management

Prerequisite: MGT 383.1(.2) and 384.1(.2) or PSY 327.1(.2) and 427.1(.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.

386.1(.2) Industrial Relations

Prerequisite: MGT 383.1(.2) and 384.1(.2) or PSY 327.1(.2) and 427.1(.2).

An introduction to the field of industrial relations. It focuses on the impact of collective bargaining in management/labour relations. Topics covered include the historical development, structure, and operation of labour unions, the process and contents of negotiations and the settlement of union/management disputes.

388.1(.2) Business and Society

Prerequisite: ECO 201.1(.2) and 202.1(.2) or permission of instructor.

This course addresses the relationship between business and its social and ecological environment. Topics will include corporate social responsibility and performance, stakeholder analysis, business ethics, corporate governance, consumer and employee welfare, environmental management, globalization and corporate concentration. This course will help students to better understand the relevant issues as well as to learn frameworks and tools that can assist them in integrating social, ethical, and ecological issues into strategic management.

389.1(.2) Structuring the Start-Up

Prerequisite: ACC 242.1(.2) and MKT 270.1(.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)]

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.

392.1(.2) Occupational Health and Safety

Prerequisite: at least 10.0 university credits.

This course examines current issues in occupational health and safety including employee/union involvement, government regulation, inspections and compliance auditing.

Classes 1 1/2 hrs. and seminars 1 1/2 hrs. a week. 1 semester.

480.1(.2) Ethical Responsibilities of Organizations

Prerequisite: completion of at least ten (10.0) University credits

The course focuses on the individual decision maker, the organization as a context and culture that sets the stage for ethical action; and the broader societal, economic, political, and ecological systems that influence moral decision making. Specific topics will include social responsibilities of business, corporate governance, stakeholder management, ecological sustainability, business law, and public policy.

481.1(.2) Organization Theory: Structure, Process, Analysis and Design

Prerequisite: MGT 383.1(.2) and 384.1(.2) or PSY 327.1(.2) and 427.1(.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.

483.1(2) Management Skills I

Prerequisite: MGT 383.1(2) and 384.1(2) or PSY 327.1(2) and 427.1(2).

This course presents the key skills/behaviors considered critical in achieving managerial success. Though there is a theoretical component in the course, much of its development is dependent on each participant's strengths and weaknesses. Individual skill development through activities such as class discussions, role-plays, experimental exercises and feedback on interactions are central to the learning experience within the course.

484.1(2) Management Skills II

Prerequisite: MGT 483.1(2).

There is an emphasis on class discussion, role-plays and experimental exercises in the development of stronger interpersonal skills. Students are expected to develop theoretical bases for their decisions on which types of interactions are most effective in particular situations and to be able to actualize these behaviors in role-play situations.

485.1(2) Wage and Salary Administration

Prerequisite: MGT 385.1(2) or PSY 327.1(2) and 427.1(2).

This course is designed to integrate compensation systems with employment planning, career development, and organizational planning concepts.

486.1(2) Personnel Staffing, Training and Development

Prerequisite: MGT 385.1(2) or PSY 327.1(2) and 427.1(2).

This course deals with the issue of matching job requirements with personal characteristics. This will be considered from scientific and statistical perspectives and their implication for practical applications. These principles are also considered as they apply to training and developing human resources.

487.1(2) New Venture Opportunities

Prerequisite: MGT 389.1(2).

Students are led through the development of the major elements of a business plan for a new venture. As a planning and financing tool, the business plan outlines in detail and specifically quantifies market potential, competition, production and operational requirements, finance, management and the overall feasibility of a possible new venture.

488.1(2) International Business Management

Prerequisite: completion of at least ten (10.0) credits.

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.

489.1(2) Strategic Management

Prerequisite: FIN 361.1(2), MKT 270.1(2), MGT 383.1(2), MGT 384.1(2), and one (1.0) additional credit 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.

490.1(2) Seminar in Management

Prerequisite: completion of at least ten (10.0) credits 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.

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**494.1(2) Entrepreneurship: Theories and Concepts**

Prerequisite: completion of at least ten (10.0) credits.

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: completion of at least ten (10.0) credits.

This course requires students to work with a small business owner/manager to identify a small business problem, to develop a workable solution to the problem, and to implement that solution.

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.

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 instructor and students.

498.1(2) Small Business Consultancy

Prerequisite: permission of instructor.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client

during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information see <http://www.smu.ca/smubdc>.

Internship. 1 semester.

499.1(.2) Senior Management Perspectives

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

This course is designed to address theory and practical applications relating to factors that impinge on behavior in organizational settings. Topics covered will focus on theoretical and practical issues relating to organizational socialization, perceptions, attributions, motivation, learning and reinforcement, stress and work, macro organizational factors (structure, design, culture), and organizational change. Teaching methods will include lecture, case analysis, and group and individual projects.

586.1(.2) Leadership and Behavioral Process

This course is designed to address theory and practical applications relating to the processes of management and leadership in organizational settings. Topics covered will include leadership, individual difference (attitudes, personality), communication, feedback, interviewing, negotiations, conflict, team work, persuasion, presentation, power and influence, participative decision making and delegation. The course will consider the relevant theoretical and conceptual models relating to these topics but will also place an emphasis on practical applications involving simulations.

600.1(.2) Entrepreneurship: Theory and Concepts

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

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; and entrepreneurship in developing and developed economies.

601.1(.2) Essentials of Management Consulting

Prerequisite: completion of all 500 level MBA courses.

This course is an introduction to management consulting for those considering a possible career in the field. It provides an overview of the history, trends, dynamics and competitive structure of the industry. Emphasis will be on the consulting process in action. The course will introduce participants to key practices in undertaking a consulting assignment, including the preparation of proposals and managing the consulting process. Issues facing the consulting profession, including ethical decision making, will also be addressed.

Note: Students are advised to consult with the Chairperson of the Department re: arrangements with the Canadian Society for Managerial Accounts for registration in this particular course.

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) Performance Management

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

The focus of this course will be in two areas: Performance Evaluation and Reward Systems. In performance evaluation, this course introduces the students to elements of an effective performance appraisal system, types and accuracy of various performance measures and alternate appraisal methods. The course also provides a fairly detailed understanding of the issues involved in job evaluation, designing compensation systems, especially managerial compensation, fringe benefits and application of motivation themes to performance management.

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.

A 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.

An investigation of the role of the personnel manager and the changes in the nature of responsibilities brought about by changes in the 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) Industrial Relations

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course reviews the development, structure, and operations of labour unions. It introduces the student to the legislation that governs labour-management relations in the unionized context. Included here are laws governing union certification, unfair labour practices, strikes, lockouts and picketing and other key issues. This course also deals with negotiation of

collective agreements and various means of conflict resolution, such as conciliation, mediation, and arbitration.

687.1.(2) New Venture Opportunities

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

Students are led through the development of the major elements required for a business plan for a new venture, as well as developing an appreciation for new venture growth in the economy. As a planning and financing tool, the business plan outlines in detail and specifically finance, management and the overall feasibility of a possible new venture. Attention is given to customizing the plan to specific requirements of different financing (e.g., venture capital, bank finance, angel investors).

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 and ecological impacts of business activity. Topics will include corporate social responsibility and performance, stakeholder analysis, business ethics, corporate governance, consumer and employee welfare, environmental management, sustainable development, multinational corporate power, and distributive justice. This course will help students to better understand the relevant issues as well as to learn frameworks and tools that can assist them in integrating social, ethical, and ecological issues into strategic management.

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.

691.1.(2) Staffing, Training and Development

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course deals with two important human resource activities: staffing and organization with the right individuals and training them to perform their current and future responsibilities competently. This course would cover topics such as recruitment techniques, selection tools (e.g., tests, interviewing), orientation and training, and management techniques using various learning principles.

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.

693.1.(2) Management in Developing Economies

694.1.(2) Ethical Issues in the World of Business

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director, Departmental Chairperson, and instructor.

The purpose of the course is to examine some of the problems that arise in business from an ethical point of view. The course objectives will be to develop an understanding of what moral/ethical issues are, as distinct from practical, legal, or religious matters. Students will acquire a framework for analyzing ethical problems and then consider a number of difficult matters that business people must deal with in their careers. As the topics are introduced, students will see how they stem from issues in accounting, finance, human resources, marketing, and strategic management.

695.1.(2) Small Business Performance Improvement

Prerequisite: completion of all required 500-level MBA courses and permission of MBA Director.

This course requires students to work with a small business owner/manager to identify a small business problem, to develop a workable solution to the problem, and to implement that solution.

696.1.(2) The Negotiating Process

Prerequisite: MGT 686.1.(2) or permission of instructor.

The focus of this course is on the negotiating process with special emphasis on contract negotiation between management and union. It examines the nature of negotiation, planning and preparation for negotiation, negotiating theories, strategies and tactics. It also examines the roles of such key elements in negotiation as communication, persuasion, power and ethics.

697.1.(2) Family Business

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course is designed to look at the dynamics of family-owned businesses which have problems peculiar to its family orientation. This course would cover issues such as: income vs. inheritance, management and promotion, bringing non-family resources to the firm, harvest and sell-out strategies, succession, deciding to join the family firm, establishing credibility as a daughter or son, stages of family business growth, and strategic planning.

699.0 Research Project in Management

Corequisite: MBA 697.1.(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.

The following courses are reserved exclusively for students enrolled in the doctoral program in Business Administration (Management) at Saint Mary's University.

701.1.(2) Management Thought and the Management Environment

This course focuses on the development of management thought, the factors that shaped the various schools of thought, and the central debates around issues of ontology, epistemology, and methodology. The course is designed to achieve four objectives:

- (i) a working, in-depth knowledge of a range of management theories;
- (ii) an understanding of the relationship between theory, practice and social context;
- (iii) a critical appreciation of the relationship between theory, context and organizational outcomes; and
- (iv) a forum for reflecting on and developing research proposals.

702.1.(2) The Nature of Management Research

This course comprises an introductory survey of research methods commonly used in management/HR research. Typical topics include framing a research question, research ethics, and both qualitative and quantitative research methodologies.

703.1.(2) Qualitative Research Methods

This course is designed to introduce students to various approaches to qualitative data collection, description, analysis and interpretation. Students will be exposed to a variety of methods including observation, interviews and textual analysis. Generic issues to be discussed will include conducting and presenting qualitative research, performing convincing data analysis, evaluating the findings of, and developing theory from, qualitative research studies.

704.1.(2) Quantitative Research Methods

This course focuses on quantitative research methods as used in human resources/organizational behavior research. Typical topics include survey methodology, experimental and quasi-experimental design, longitudinal methods, unobtrusive measures, meta-analysis and psychometric theory.

705.1.(2) Multivariate Statistics for Management Research

This course reviews multivariate statistical methods commonly used in human resource management. Topics considered include regression models and alternatives to OLS regression, MANOVA and related models, cluster and multidimensional scaling analyses and structural equation modeling.

710.1.(2) Doctoral Seminar in Human Resource Management

This course comprises a detailed consideration of topics in the current human resource management research literature. The course considers both the technical and strategic research literatures in human resource management.

720.1.(2) Doctoral Seminar in Organizational Theory and Design

This course focuses on the development of theories of organizational structuring and design over the last century, the factors that shaped those ideas, and the various schools of thought. The course is designed to achieve the following objectives:

- (i) in-depth knowledge of classic theories of organization and their implications for modern-day organizational theory and design;
- (ii) a critical understanding of the relationship between industrial development and theories of organization;
- (iii) a detailed knowledge of a range of current issues and debates within organizational theory and design;
- (iv) a thorough understanding of the relationship between organizational theorizing and practice.

730.1.(2) Directed Readings in Management I

This is a directed studies course in which a student undertakes a detailed consideration of an area of management research in consultation with a faculty member.

740.1.(2) Directed Readings in Management II

This is a directed studies course in which a student undertakes a detailed consideration of an area of management research in consultation with a faculty member.

899.0 Thesis

Empirical research conducted under the supervision of an Advisory Committee.



The Sobeys Building housing the Sobeys School of Business.

Marketing (MKT)

Chairperson, Associate Professor	L. Rieber
Professors	C. Kim, A. Miciak
Associate Professors	H. Ogden, L. Van Esch, R. Venkat
Assistant Professor	G. Fullerton
Lecturers	V. Creelman, M. Morales

The Department of Marketing offers a program for marketing 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 one (1.0) additional elective 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.

375.1(.2) International Marketing

Prerequisite: MKT 270.1(.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.

376.1(.2) Consumer Behavior

Prerequisite: MKT 270.1(.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.

378.1(.2) Marketing Research

Prerequisite: MSC 207.1(.2) and MKT 270.1(.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.

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.

380.1(.2) Marketing and the Organization

Prerequisite: MKT 270.1(.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 discussions, case analyses, and research projects.

462.1(.2) Services Marketing

Prerequisite: MKT 379.1(.2).

Students will be exposed to conceptual and managerial issues in the marketing of services. Topics include marketing and service organizations, service-quality management, service marketing mix, marketing strategies for profit and non-profit service organizations, international and emerging perspectives on service marketing. Students will develop strategies for specific service areas such as health care or tourism.

470.1(.2) Ethical Issues in Marketing Management

Prerequisite: MKT 270.1(.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.

471.1(.2) Integrated Marketing Communications

Prerequisite: MKT 379.1(.2).

Students study models of interpersonal and mass communications 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.

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 responsibilities of each member, the factors affecting channel effectiveness, the methods for developing and managing effective channel relationships.

474.1(.2) Personal Selling and Sales Management

Prerequisite: MKT 379.1(.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.

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.

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.

477.1(.2) Marketing to Organizations

Prerequisite: MKT 379.1(.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.

478.1(.2) Retail Management

Prerequisite: MKT 379.1(.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.

479.1(.2) Marketing Policy

Prerequisite: MKT 379.1(.2).

Students integrate the material learned in the prerequisite, upper-division marketing courses to analyze 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.

490.1(.2) Special Topics in Marketing

Prerequisite: MKT 379.1(.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.

492.1(.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.

495.1(.2) Business Consultancy

Prerequisite: MKT 379.1(.2) (which may be taken concurrently) and permission of instructor.

This course allows students to gain business experience by working for clients of the Saint Mary's University Business Development Centre.

Student groups receive a project proposal outlining the requirements, information needs, and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information see <http://www.stmarys.ca/smubdc>.

Internship. 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.

571.1(.2) Marketing Management: An Overview

A 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.

610.1(.2) Competitive Strategy and Sustainable Development

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

In this course, students will examine the complexities involved in balancing corporate environmental responsibility with competitiveness in the marketplace. Students will learn about how environmental strategies can contribute to cost reduction, process and product innovations, organizational learning, improved relationships with customers and channels of distribution, improved corporate reputation, and higher brand equity. Method of instruction may include seminar discussion, case analysis, simulations, secondary research, and field research projects.

Seminar and Projects 3 hrs. a week. 1 semester.

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.

671.1(.2) Services Marketing

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

An examination of the marketing management process as applicable to service organizations. Students will develop a marketing framework

relevant to services marketing. With emphasis on current literature, service-quality management, managing the customer and marketing mix, designing and managing a marketing-oriented service organization, globalization of services, strategy formulation for profit and non-profit services will be addressed.

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.

674.1.(2) Marketing on the Internet

Prerequisite: MKT 571.1.(2) and MSC/CIS 521.1.(2).

This course will provide students with an understanding of the Internet as a marketplace. Technical as well as managerial issues involved in electronic commerce will be addressed. Using online readings, cases, and assignments, students will develop an understanding of the rapidly developing and changing Web-based market, and the associated consumer behavior and marketing strategy issues.

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.

679.1.(2) Strategic Marketing

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

In this course, students will develop understanding and analytical skills to make strategic choices for achieving sustainable competitive advantage in global market environments. Method of instruction may include seminar discussions, case analysis, simulations, secondary research and field research projects.

680.1.(2) Marketing Research Applications

Prerequisite: completion of all 500-level courses and MBA 697.1.(2) or permission of MBA Director.

This course focuses on the application of marketing research in key areas of marketing decision making. The decision areas to be covered may include market segmentation and targeting, new product introduction, promotion, and pricing. As part of the course requirements, students will design and execute a marketing research project that demonstrates the value of marketing research in managerial decision making.

690.1.(2) Seminar in Marketing

Prerequisites: 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.

699.0 Research Project in Marketing

Corequisites: MBA 697.1.(2), 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 Ramesh Venkat
Program Manager Jennifer Johnson

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 those described in the following paragraphs.

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.

010.1.(2) Professional Skills Development

This required non-credit course is intended to provide students opportunities to develop and hone career management skills, interpersonal and team skills, cross-cultural skills and communication skills. The course may be delivered on or off-site and may involve seminars and workshops.

Seminar/Workshop - 30 hours.

Note: Successful completion of this course will result in an "S" (satisfactory) grade on the student's transcript. This will **not** be counted into quality point averages.

020.1.(2) Integrative Case Competition

Prerequisite: completion of all 500 level MBA courses.

This required non-credit course is intended to provide students with an opportunity to apply the concepts learned in the first year of the MBA Program. Students will also have to demonstrate team skills, problem solving skills and communication skills. Students, working in teams, will solve several integrative and strategic cases and present the cases to a panel of judges. Feedback on content, team work and communication skills will be provided.

Case Presentations 15 to 25 hours.

Note: See above under the MBA 010.1.(2) course description.

502.1.(2) Managerial Economics and Decision Analysis

This course focuses on optimal decision-making for firms, emphasizing economics and quantitative methods. Topics will include the economic behavior of firms and consumers, analysis of cost, revenue and profit; organization using incremental and marginal analysis; decision-making under risk and uncertainty; analysis of supply and demand; optimizations of production, cost and market/distribution decisions; and market structures and the role of government.

597.1.(2) Business Research Methods

This course will deal with quantitative research methods, as well as tools applied in business research. Topics may include: research process, primary and secondary data collection, data analysis, econometric modeling and multivariate techniques, use of information technology in research, communicating research findings, and business research ethics. Lectures, cases and lab exercises will be used.

601.1.(2) Integrative Management Exercise

Prerequisite: completion of all 500 level MBA courses.

This course will use experimental learning methods such as simulations and/or field projects to integrate the different functional areas of business. Students will work in teams and will formulate/implement business strategies. In addition to emphasizing the inter-relationships between functional areas, the course will also develop critical managerial skills.

696.0 Small Business Accounting and Finance

Prerequisite: completion of all required 500-level MBA courses or permission of MBA Director.

This course will focus heavily on the relevant tools in Accounting and Finance needed to successfully operate day-to-day activities of a small business. The Accounting component of this course will concentrate on the preparation of the financial and managerial accounting information needed to manage a successful owner managed business. The Finance component will concentrate on the use of accounting information for working capital management and capital budgeting. Among the topics to be covered are income and commodity tax system (tax planning), financial reporting, financial statement analysis, capital budgeting for small business (including working capital management), financial forecasting, decision to purchase or lease performance appraisal, banking relationships, employment benefit management and legal environment.

698.1.(2) MBA Consulting Project (MCP)

Prerequisite: completion of all required 500 level MBA courses or permission of MBA Director.

This course will provide students with an opportunity to apply concepts and theories learned in the program in a practical setting. Students will be assigned individually or in teams to a business or non-profit organization. Students will work with the client organization, under the supervision of a faculty member, to develop a detailed consulting report.

699.1.(2) MBA Internship

Prerequisite: completion of all 500 level MBA courses and permission of MBA Director.

The MBA Internship provides students an experiential learning opportunity through work experience in an organization. Students will be able to apply the concepts learned in the program and will also be able to bring back real life experience into the classroom. Enrollment will be limited and based on competitive selection process. Students will be required to submit reports during and at the end of the work term. An employer assessment of student performance will be conducted.

Master of Finance (MFN)

Director Francis Boabang

Program Requirements and Courses

The requirements for the Master of Finance are found in Section 3 of this *Calendar*. The courses for this program are described in the following paragraphs.

The following courses are available only to students registered in the Master of Finance Program. No exceptions can be made because of the uniqueness of the program's delivery. Unless otherwise stated, classes are offered 6 hours a week for 8 weeks.

500.1.(2) Microeconomics and Business Strategy

The objective of this course is to provide students with the microeconomic analytical tools which can be applied in managerial decision-making under constraints and uncertainty. The focus will be on the theory of consumer behavior and demand, theory of production and cost in both the short run and long run behavior of the firm, and the appropriate firm pricing strategy under different market structures.

501.1.(2) Macroeconomics and Public Policy

The course examines the operations of the macroeconomy in the short and long run, and discusses the macroeconomic functions of the public sector in a market economy. Special attention will be given to the interaction between domestic and international asset markets (including the market for foreign exchange) and the market for goods and services, and to the role of fiscal and monetary tools that can be employed by public policy makers to affect overall economic activity and to influence the operation of business organizations in a global economy.

540.1.(2) Financial Reporting and Analysis

Financial Reporting and Analysis provides an introduction to reporting to parties external to the organization. Using a conceptual approach, the course gives a thorough understanding of financial reporting concepts, principles and practices and how to interpret and analyze financial statements. An appreciation of the limitations inherent in published financial reports is provided throughout the course. This course is intended to provide the prerequisite knowledge and skill set for a second course, Financial Reporting and Statement Analysis, which in turn can serve as a basis for the Financial Analysts Program.

603.1.(2) Applied Statistics and Data Analysis

The objective of the course is to provide the student with an in-depth understanding of the most useful applied statistical techniques used in data analysis. Emphasis will be on designing, conducting, analyzing, and interpreting the results of research designs. Topics include a review of statistical inference, basic ideas of linear regression, multiple regression analysis, functional forms of regression models, and several practical aspects of the linear regression model. Extensive use is made of computer-oriented statistical packages.

609.1.(2) Econometrics and Business Forecasting

The objective of this course is to provide students with a solid working knowledge of the theory and practice of econometric modeling and forecasting. The focus will be on selected topics in econometrics (with emphasis on newer developments) and on the most commonly forecasting methods (such as exponential smoothing, time series decomposition, and AIRMA-type forecasting models) that may usefully be applied in a real world setting to forecast financial as well as non-financial economic variables.

641.1.(2) Financial Statement Analysis

The course examines financial statements from the perspective of both preparers and users of financial information. The course begins with the conceptual framework underlying the reporting process and proceeds to a structured analysis of the basic financial statements: The income statement, the balance sheet and the statement of cash flows. Here, the supply side (the various models of information production) will be emphasized. The course then shifts to the demand side of the financial information, where the focus is on the myriad mechanisms of information extraction. Modern techniques such as *multiples* and *forecasting* are used to establish a functional relationship between the accrual process and the economic position of a firm. The course will focus on the valuation approach: The informed use of accounting numbers in projecting cash flows and determining fundamental security values. The student will appreciate the judicious use of accrual accounting in all facets of financial decision making.

Classes: 6 hrs a week. 7 weeks. Lab: 16 hrs.

663.1.(2) Financial Management

This course provides 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. Managerial in emphasis, this course examines financial planning and analysis, working capital management, capital budget techniques, and theories of cost of capital, portfolio theory and valuation of the firm. Other topics considered include investment decisions and subsequent financing such as leverage and capital structure of the firm, and dividend policy. This course is intended to provide the prerequisite knowledge and skill set for a second course, Corporate Finance.

664.1.(2) Corporate Finance

This course will examine contemporary financial theories and their applications in formulating corporate policies in major areas such as asset allocation, i.e., which capital investments to undertake, how to finance them, i.e., capital structure and dividend policy management and corporate restructuring. Case studies and problems will be used to facilitate the understanding of how financial theories can be applied in practice. The course objectives: students (i) will acquire knowledge and understanding of the concepts and mainstream theories in corporate finance including recent developments in the area; (ii) will be able to evaluate the strengths and limitations of up-to-date theories and practices in corporate finance; (iii) will be able to apply financial theories in corporate financial management and policy making. In summary, this course is designed to develop skills found in competent financial managers.

667.1.(2) Future and Options

This course is intended to help students understand derivatives, with emphasis on options and futures. It provides a detailed introduction to the markets, characteristics, applications, and valuations of various futures and options. Topics covered include commodity futures, stock market index futures, interest rate futures, foreign currency futures, stock options, stock market index options, interest rate option, currency options, options on futures, and some exotic options. The binomial option pricing model and Black-Scholes option pricing model are covered, including the stochastic processes underlying the Black-Scholes model and derivation of the model.

The course will be delivered in forms of lectures and lab work. While the lectures will introduce the theories, models, and principles, the lab work will expose students to real derivative markets, and help students use financial market databases and option pricing and analysis software.

Classes: 6 hrs. a week. 7 weeks. Lab: 16 hrs.

668.1.(2) Investments and Portfolio Management

This course presents an overview of the Canadian investment environment. A framework is developed for assessing the merits of various securities that trade in the money and capital markets. Topics covered in this course include sources of financial information, Canadian market indicators, market transactions, and margin trading, portfolio risk and return analysis, CAPM, single index models and APT, market efficiency, the analysis of fixed income and equity securities and derivatives. An application to portfolio management is given. Major subject areas include the different types of funds, their objectives, performance evaluation and attribution analysis, an analysis of the aggregate stock market, industry, and company. This course is intended to provide the prerequisite knowledge and skill to serve as a basis for the Financial Analysis Program.

Classes: 6 hrs. a week. 7 weeks. Lab: 16 hours.

669.1.(2) Risk Management

This course introduces students to a very important area: risk management. It will firstly provide an overview of risk management, including the institutional issues, and the concept of firm-wide risk management. Then, various tools and methodologies of risk management will be explored, with focus on using derivatives. It will discuss the management of some major types of risks such as market risk, interest rate risk, currency risk, credit risk, and so on. In addition to lectures, several cases will be studied.

670.1.(2) Fixed Income Securities Analysis

This course provides a detailed analysis of the bond and money markets and the instruments available therein. Although the emphasis is on North American securities, global portfolios are also examined. Bond valuation and bond portfolio management strategies – duration and convexity – are covered in depth. Treasury securities and STRIPS, corporate bonds,

municipal bonds, term structure of interest rates, mortgage market – mortgage backed securities and CMO's, bonds with embedded options, and interest rate risk management and swaps are addressed. This course serves as a basis for the Financial Analysts Program.

Classes: 6 hrs. a week. 7 weeks. Lab: 16 hrs.

671.1.(2) Financial Markets and Institutions

This course will deal with the structure and function of Canadian financial institutions such as: banks, brokers and investment banks, insurance companies and mutual funds. The role of each type of institutions in the economy will be discussed as well as regulation of the industry. The main emphasis of the course will be on the institutions as businesses; their profit and risk structure.

676.1.(2) International Business Financing and Banking

This course is organized around two themes – (i) the concept of multinational 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, off shore financial centers, external debt and rescheduling and increased regulatory and supervisory measures.

690.1.(2) Special Topics in Finance and Research Methodology

This course focuses on the tools needed to carry out successful empirical research in functional areas of Finance, namely, corporate, derivatives, investments and portfolio management. Topics covered include an application of statistical model building to research in Finance focusing on special topics in Finance such as market efficiency, performance evaluation techniques, performance decomposition (market timing, selectivity and asset allocation), option combinations, strategies, implied volatilities and sensitivity analysis. Analysis of IPO under pricing and performance persistence measures are also covered.



Friends and fun at Saint Mary's University – summer and winter.

Masters in Management of Co-operatives and Credit Unions (MMC)

The MMCCU program is a distance learning (WebCT-based) program designed to allow managers of co-operatives and credit unions to study while they work and to develop the skills needed to run a co-operative business in a rapidly shrinking world.

The following courses are open only to students formally enrolled in the Masters in Management of Co-operatives and Credit Unions and with permission of the MMC Co-ordinator to students registered in other masters' programs.

500.1.(2) Philosophical Origins and Historical Evolution of Co-operative Governance and Business Practice

This course uses readings, discussion groups, lecturers, seminars and papers to communicate the nature and development of co-operative values over the last 180 years and to indicate their current relevance in our society.

510.1.(2) The Emerging Global Economy and Society from a Co-operative Perspective

This course uses readings, discussion groups, lectures, seminars, and papers to develop an understanding of the nature of the global economy. Among the topics covered will be monetary and fiscal theory, international trade and finance theory and policy, and the nature and impact of globalization trends.

520.1.(2) Comparative Co-operative Practice I: Variety and Range of Co-operative Business

Prerequisite: MMC 500.1.(2) and 510.1.(2).

This course uses readings, discussion groups, lectures, seminars and papers to explore the range of businesses that are organized as co-operatives and to understand the connection between co-operative forms and the human needs that they serve.

530.1.(2) Co-operative Financial Analysis and Management I

Prerequisite: MMC 500.1.(2) and 510.1.(2).

This course uses readings, discussion papers, lectures, seminars and papers to explore the strengths and limitations of financial statements so as to understand how performance measurement systems appropriate to management of co-operatives and credit unions can be developed.

540.1.(2) The Emerging Global Economy and Society from a Co-operative Perspective II

Prerequisite: MMC 500.1.(2) and 510.1.(2).

This course uses readings, discussion groups, lectures, seminars and papers to continue the discussion (which started in MMC 510) of the impact of globalization on the generation of goods and services, the ecology of the planet, the distribution of wealth and the role of governments and the location and nature of decision making in the global economy.

550.1.(2) Field Research: Study Visits to Exemplars of Excellent Co-operative Business Practice

Prerequisite: MMC 520.1.(2), 530.1.(2) and 540.1.(2).

This course consists of a study tour, preceded by appropriate readings, to a co-operative or credit union that is perceived to be an exemplar of excellence in management and performance. The trip is to be analysed with reference to the applicability of observed practices to the home institution of the student.

600.1.(2) Comparative Co-operative Practice II: Co-operative Innovations and Best Practice

Prerequisite: MMC 550.1.(2).

This course uses readings, discussion groups, lectures, seminars and papers to develop an analysis and understanding of best management practice in co-operatives and credit unions. The principles of benchmarking as well as topics such as socialization, perception, attribution, motivation, learning and organizational design, structure, and culture will lay a theoretical basis for the analysis.

610.1.(2) Technology, Communication and Co-operation

Prerequisite: MMC 550.1.(2).

This course uses readings, discussion groups, lectures, seminars and papers to develop an understanding of available advanced technologies and how they have (or have not) been used to advantage by co-operatives and credit unions.

620.1.(2) Marketing the Co-operative Advantage: Co-operative Education, Member Relations and Marketing

Prerequisite: MMC 550.1.(2).

This course uses readings, discussion groups, lectures, seminars and papers to develop an understanding of marketing principles from the perspective of a co-operative business. Market research carried out by co-operatives around the world will be reviewed. Research methodology will be explored including member communication, surveys, sales analysis and focus groups.

630.1.(2) Co-operative Financial Analysis and Management II

Prerequisite: MMC 550.1.(2).

Building on MMC 530, this course uses readings, discussion groups, lectures, seminars and papers to develop a strong capacity for financial analysis and financial management. There will be a particular focus on the nature of co-operative capital, its development and retention. The course will enable managers to acquire the tools needed to develop a balanced scorecard approach tailored to the needs of their particular co-operative, community and society.

640.1(2) The Co-operative Management Approach I: Governance, Planning and Strategic Analysis

Prerequisite: MMC 600.1(.2), 610.1(.2), 620.1(.2), and 630.1(.2).

This course uses readings, discussion groups, lectures, seminars and papers to develop student skills in analysing governance issues, planning processes, and approaches to strategy.

650.1(2) The Co-operative Management Approach II: Leadership, Personnel and Management Style

Prerequisite: MMC 600.1(.2), 610.1(.2), 620.1(.2) and 630.1(.2).

This course uses readings, discussion groups, lectures, seminars and papers to develop an appreciation of basic personnel functions such as recruitment, supervision, motivation and management issues in terms of

how they can be dealt with in a manner consistent with co-operative leadership styles. The role of tools like conflict resolution, conciliation, mediation and arbitration will also be examined.

660: Thesis: Co-operative Management Audit

Prerequisite: MMC 640.1(.2) and 650.1(.2).

The thesis requires the student to apply the learning from all previous courses in the program to the situation of their home co-operative or credit union by proposing changes to any or all aspects of the organization so as to improve its operations and enhance its value to its members.governance issues, planning processes, and approaches to strategy.



Life in residence at Saint Mary's University.

Mathematics and Computing Science (MAT, CPS, and CSC)

Chairperson, Associate Professor	R. Dawson
Professors	B. Hartnell, M.T. Kiang, P. Lingras, P. Muir
Associate Professors	A. Finbow, W. Finden, S. Konstantinidis, K. MacLeod, P. Scobey, Y.P. Singh
Assistant Professors	B. Khan, N. Linney, S. Oore
Adjunct Professors	D. Kabe, R. Spiteri
Lecturer	J. MacInnes
Math Advisor:	Dr. Y.P. Singh
CPS Advisor:	Dr. Paul Muir

The Department of Mathematics and Computing Science offers a broad range of courses, including introductory courses intended for students with little mathematical or computing science 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.

Students can obtain a degree in Computing Science in one of two possible areas. A more traditional degree in Computing Science involving an emphasis in Mathematics is offered as a minor, major, concentration, or honors. This option has the designation CPS. These programs are for students who are primarily interested in the technical aspects of Computing Science. Alternatively, students interested in applying the technical aspects of Computing Science to business can obtain a major in Computing Science and Business Administration. This option has the designation CSC and is available as a major only. Note too that all computing science courses offered by this Department have a CSC designation, whether applied to a CPS or CSC degree designation. Both of these Computing Science options have a Co-op option.

Details on the computing science programs are found below immediately following the detailed course descriptions for mathematics.

Co-operative Education Program (Co-op)

This program is designed for students in the honors or major programs who wish to gain relevant work experience while attending university. The general requirements for the Co-operative Education program can be found in the Faculty of Science regulations, Co-operative Education Section, of this *Calendar*. Interested students should contact the Department of Mathematics and Computing Science Co-op advisor before the end of their first year.

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.

Upper Level Mathematics Course Offerings

In order to help major and honors students plan their course of study, each year during the second semester, the Department typically offers 400 level Mathematics courses:

- (1) MAT 405 and MAT 406 are offered every year.
- (2) MAT 401, MAT 402, MAT 408, MAT 409, MAT 420, MAT 421, MAT 434, MAT 436, and MAT 437 are offered in academic years in which the fall term is an even numbered year.

(3) MAT 426, MAT 427, MAT 430, MAT 432, MAT 441, MAT 442, MAT 456, and MAT 457 are offered in academic years in which the fall term is an odd numbered year. Although every effort will be made to keep this schedule, no absolute guarantee can be made.

Mathematics (MAT)

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).

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).

Students who lack the stated high school courses prerequisite for credit courses in mathematics or computing science are advised to enrol in MAT 010.1(.2)/011.1(.2) in Year 1.

Requirements for a Major in Mathematics

A major in mathematics 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).

The Departmental requirements for a major in mathematics 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) [three (3.0) in case of double major] additional credits in mathematics courses numbered 216 or 305 or above, chosen by the student in consultation with the Department. At least two (2.0) credits [one (1.0) in case of double major] must be at the 400 level or above.

Requirements for Honors in Mathematics

The honors program is designed for mathematics majors of above average ability. Mathematics 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 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 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) [four (4.0) in case of double honors] additional credits in mathematics courses numbered 216 or 305 or above, chosen by the student in consultation with the Department. At least four (4.0) credits [two (2.0) in case of double honors] must be at the 400 level or above.

Notes:

- (i) 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.
- (ii) Students taking a major or honors in mathematics are permitted credit for at most one of BIO 308.1(.2), ECO 207.1(.2), MAT 207.1(.2), MSC 207.1(.2), or PSY 350.1(.2); and shall not be permitted credit for any of these courses simultaneously with or subsequent to MAT 216.1(.2) or 316.1(.2).
- (iii) Major and honors students in mathematics can use CSC courses to satisfy Faculty of Science regulation 6e or 12b.

Requirements for a Minor in Mathematics

It is possible to minor in mathematics by completing the equivalent of five (5.0) credits in mathematics in addition to satisfying Faculty of Science regulations for a minor. These courses must include:

- a. MAT 210.1(.2), 211.1(.2), 310.1(.2), 311.1(.2), 320.1(.2), and 321.1(.2) (3.0 credits)
- b. Four additional half-credit courses (2.0 credits) in mathematics numbered 200 or above.

Concentration in Mathematics (B.A.-General)

To obtain a concentration in Mathematics in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits), a minimum of four (4.0) credits in MAT is required; also a minimum cumulative quality point average of 2.00 is required. Further details are available from the chairperson.

Requirements for a Double Major or Double Honors in Mathematics and Physics

Detailed requirements for these programs are found above in the Department of Astronomy and Physics.

Certificate in the Mathematical Sciences for Education

1. Introduction

The Certificate in the Mathematical Sciences for Education is intended to provide holders of a Bachelor of Education (B.Ed.) degree with a broad background in mathematics, statistics, and computing science, enabling them to teach high school mathematics courses effectively. Teachers who complete this program will have a deep understanding of the mathematics that they teach, and a familiarity with the various contexts in which their own university-bound students will use that mathematics. A teaching methods course is an integral part of this program.

2. Admission

To gain entry to this program, students must have a B.Ed. (or equivalent). They must also have at least Grade 12 precalculus mathematics (or equivalent) before starting MAT 210. (Among possible equivalents are MAT 190 and some non-credit courses offered at Saint Mary's. **Note:** these do not form part of the Certificate Program.) Precalculus

mathematics is not a prerequisite for MAT 202, MSC 205, or MAT 207. **Students must register in the actual program before starting courses.**

3. Courses

Students must take at least five (5.0) credits as delineated below. Where the student has already obtained credit for one or more of these courses (or equivalents) as part of a program leading to an earlier certification by the Nova Scotia Department of Education, MAT or CSC courses numbered 200 or above and acceptable to the Department of Mathematics and Computing Science may be substituted. (Students should note that each individual's program must be approved ahead of time by the Registrar for Teacher Certification in order to be recognized for teacher certification in Nova Scotia.)

MAT 202.1(.2)	Concepts and Topics in Mathematics
MSC 205.1(.2)	Introduction to Quantitative Methods for Commerce I
MAT 207.1(.2)	Survey of Statistics
MAT 210.1(.2)	Intro Calculus I
MAT 211.1(.2)	Intro Calculus II
MAT 216.1(.2)	Intro Mathematical Statistics
CSC 226.1(.2)	Introduction to Computing Science and Programming
MAT 305.1(.2)	Discrete Mathematics I
MAT 320.1(.2)	Linear Algebra I
EDU 523.1(.2)	Mathematics

4. To obtain the Certificate, a student in this program must achieve a minimum grade of C in all courses forming part of the certificate and hence have a minimum cumulative quality point average of 2.00.

5. The Department of Mathematics and Computing Science restriction on receiving credit for an advanced course, and then receiving credit for a course prerequisite to the advanced course, and the restriction on taking MAT 207.1(.2) and MAT 216.1(.2), do not apply to this Certificate program.

6. All courses must normally be taken at Saint Mary's University. In very exceptional circumstances, the Department of Mathematics and Computing Science may recommend to the Acting Dean of Education for one or more courses to be taken at another university on a Letter of Permission. Courses taken at or transferred from other universities must meet the program's requirement of a minimum grade of C.

7. A student who intends to use this program to obtain a license upgrade or other professional certification **MUST** obtain **prior** written approval from the appropriate authorities (in Nova Scotia, the Registrar for Teacher Certification). **The student is responsible for obtaining such approval;** Saint Mary's University takes no responsibility for the approval of individual programs of study.

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 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.

011.1.(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 the binomial theorem. Mathematical induction.

Classes 3 hrs. plus recitation 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.

050.1.(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 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.

051.1.(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 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.

190.1.(2) Pre-Calculus Review

Prerequisite: the equivalent of Nova Scotia precalculus Grade 12 or MAT 441 which is the prerequisite for MAT 210.1(.2).

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. plus recitation 1 1/2 hrs. a week. 1 semester.

Notes: (i) Students who have passed MAT 190.1(.2) are exempted from writing the pre-test for MAT 210.1(.2).
(ii) MAT 190.1(.2) is given in the fall and summer of each year; MAT 210.1(.2) is given in the winter of each year; and MAT 211.1(.2) is given in the summer of each year. Thus, if you do not meet or exceed the standards set by the department as indicated on the pre-test, it is possible to take MAT 190.1(.2) and still complete the Calculus in one calendar year.
(iii) Students receiving a grade of less than C are advised not to proceed with MAT 210.1(.2).
(iv) 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.

(v) This is a credit course but can only be counted as an elective.

202.1.(2) Concepts and Topics in Mathematics

Prerequisite: Nova Scotia Academic Grade 12 Mathematics (or equivalent)

This course will deal with fundamental concepts and topics in Mathematics, including the axioms of arithmetic and algebra, the integer, rational, and real systems, sets and logic.

Note: This course is intended to provide the necessary MAT background for elementary teachers.

Classes 3 hrs. and recitation 1.5 hrs. a week. 1 semester.

203.1.(2) Concepts in High School Mathematics

Prerequisites MAT 202.1(.2) and Nova Scotia Grade XII Pre-Calculus MAT or equivalent.

This course will deal with the mathematical background of topics such as algebra, geometry, probability, and statistics that are in the Nova Scotian junior high and high school curriculum. This course, in conjunction with MAT 202 and other courses, is intended to provide the necessary MAT background for junior high school teachers. The material will be covered in significantly greater depth than would actually be taught in the school classroom.

Classes 3 hrs. a week plus recitations 1.5 hrs. a week. 1 semester.

207.1.(2) Survey of Statistics

Prerequisite: The equivalent of Nova Scotia Precalculus Mathematics 12 or Mathematics 12 Academic.

This course provides an introduction to statistics accessible for students in any discipline. The emphasis will be on developing a practical approach to data analysis rather than on mathematical theory. Topics will include exploratory data analysis, elementary probability theory, confidence intervals, hypothesis testing, ANOVA, and regression. As well, students will be introduced to the use of computers in data analysis.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week. 1 semester.

Notes: (i) Students who do not pass at least one of the two pre-tests in this course will be required to withdraw from this course. These students are advised to take MAT 050.1(.2) before attempting MAT 207.1(.2) again.

(ii) No credit will be given for this course simultaneously with or subsequent to credit given for BIO 308.1(.2), ECO 207.1(.2), ECO 303.1(.2), MAT 216.1(.2), MSC 207.1(.2), MSC 303.1(.2), or PSY 305.0.

210.1.(2) Introductory Calculus I

Prerequisite: The equivalent of Nova Scotia Grade Precalculus Mathematics 12 or MAT 441.

Topics will include: functions, limits, continuity, derivatives, the chain rule, implicit differentiation, inverse functions, exponential and logarithmic functions, the mean value theorem, indeterminate forms, L'Hôpital's Rule, curve sketching, maximum and minimum problems, antiderivatives, area under a curve.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week. 1 semester.

Note: Students who do not meet or exceed the standards set by the department as indicated on 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, work, inverse trigonometric functions, techniques of integration, L'Hôpital's Rule, improper integrals, arc length, surface area, parametric equations, polar coordinates, simple differential equations, approximate integration.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week. 1 semester.

212.1(.2) Calculus II for Engineers

Prerequisite: MAT 210.1(.2).

Applications of integration: area between curves, volumes of revolution, work, average value of function. Techniques of integration: integration by parts, trigonometric integral, trigonometric substitutions, partial fractions, substitutions. More applications of integration: separable differential equations arc length, area of surface of revolution, applications to engineering such as moments, center of mass, hydrostatic pressure and force, applications to Economics and Biology. Parametrically defined curves, tangents, arc length, polar coordinates, areas and length in polar coordinates. Sequences and series, the integral test, and the comparison test, alternating series, absolute convergence. Power series, Taylor and MacLaurin series. The binomial series, approximation by Taylor polynomials.

Classes 3 hours plus recitations 1 1/2 hours a week. 1 semester.

Note: Since this course replaces MAT 211.1(.2) for Engineering students only, these students cannot receive a credit for both MAT 211.1(.2) and MAT 212.1(.2).

216.1(.2) Introduction to Mathematical Statistics

Prerequisite: MAT 210.1(.2).

This course provides a mathematically rigorous introduction to statistics, based on calculus. Introductory probability theory is covered, including probability distributions and densities, random variables, the central limit theorem, and counting methods. Statistical inference is then covered, including estimation and confidence intervals, hypothesis tests and the role of the likelihood function. Specific methodologies are discussed, including goodness-of-fit tests, regression, analysis of variance and nonparametric methods. As well, students will be introduced to the use of computers in data analysis.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week. 1 semester.

Note: No credit will be given for this course subsequent to MAT 314.0.

301.1(.2) Linear Algebra for Engineers

Prerequisite: MAT 211.1(.2)/212.1(.2).

Geometric vectors in three dimensions, dot product, norm cosine formulas, Schwartz inequality, cross product. Equations of lines and planes, normal vectors. Complex numbers, the complex plane, real and imaginary parts, complex conjugate, magnitude and phase, Euler's formula, roots of unity, the elementary complex functions: sine, cosine, exponential and logarithm. Systems of equations, Gaussian elimination using matrices, row echelon form, applications. Matrix algebra, matrix multiplication, matrix inverse, application to networks and graphs. Determinants and Cramers rule. Linear

independence, bases, dimensions and rank. Linear transformations: definition and examples, null space and range. Eigenvalues and eigenvectors, applications, diagonalization of symmetric matrices. Inner product spaces, least squares problems, orthonormal sets, Gram-Schmidt orthogonalization process.

Classes 3 hours plus recitation 1 1/2 hours a week. 1 semester.

Note: Students cannot receive credit for both MAT 301.1(.2) and MAT 320.1(.2).

303.1(.2) Differential Equations for Engineers

Prerequisite: MAT 212.1(.2) and 301.1(.2). Students must co-register in MAT 311.1(.2).

First order differential equations: separable equations; exact equations; integral equations; integrating factors; linear differential equations; modelling electric circuits. Second order differential equations: homogeneous linear equations; constant coefficient equations; Euler-Cauchy equations; Wronskian; non-homogeneous equations; undetermined coefficients; variation of parameters; modelling forced oscillations and resonance modelling electric circuits phasor methods for particular solutions. Power series solutions. Legendre's equation. Laplace transform, inverse transform. Linearity; transforms of derivatives and integral; s-shifting; t-shifting; unit step. Differentiation and integration of Laplace Transforms. Partial fractions method for inverse Laplace Transform. Applications to systems of differential equations, convolutions, the delta function, impulse response, transfer function. Periodic driving functions and Laplace Transforms. Fourier series; even and odd functions; half range expressions; Complex Fourier series; applications to systems driven by various periodic functions (e.g., square, wave, saw tooth, etc.) The line spectrum.

Classes 3 hours plus recitation 1 1/2 hours a week. 1 semester.

305.1(.2) Survey of Discrete Mathematics

Prerequisite: MAT 210.1(.2)/211.1(.2).

This course provides an overview of a number of topics in discrete mathematics including sets, set operations, logic, proof techniques such as mathematical induction and proof of contradiction, elementary counting techniques and combinatorics as well as applications.

Classes 3 hrs. plus recitation 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) 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.

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.

310.1.(2) Intermediate Calculus I

Prerequisite: MAT 210.1(.2)/211.1(.2).

Hyperbolic and inverse hyperbolic functions, the conic sections, 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, 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 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) or both MAT 212.1(.2) and 301.1(.2).

Limits and continuity of functions of several variables, partial derivatives, and 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. Green's theorem, Stokes theorem, and the divergence theorem.

Classes 3 hrs. plus recitation 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 Probability Theory**

Prerequisite: MAT 210.1(.2).

This course covers the probability theory which underlies fundamental statistical concepts. It assumes a good knowledge of first-year calculus, and may cover the following topics: probability, conditional probability, Bayes' Theorem, random variables, order statistics, discrete distributions, continuous distributions, expected values, moments, and special distributions including the Poisson, normal, binomial, exponential, and gamma distributions.

Classes 3 hrs. plus recitation 1 1/2 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, determinants, eigenvalues, eigenvectors, diagonalization and linear transformations, together with various applications and computational methods.

Classes 3 hrs. plus recitation 1.5 hrs. a week. 1 semester.

Note: Students cannot receive credit for both MAT 320.1(.2) and MAT 301.1(.2).**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 inner product spaces, orthogonality, Gram-Schmidt Process, linear transformations and their matrix representation, change of basis and similarity, further study of eigenvalues and eigenvectors, canonical forms, with applications to linear differential equations and quadratic forms.

Classes 3 hrs. plus recitation 1.5 hrs. a week. 1 semester.

370.1.(2) Problem-Solving Seminar**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.

402.1.(2) Vector Calculus

Prerequisite: MAT 311.1(.2) and 320.1(.2).

Topology of R^n , open sets, closed sets, cluster points, compactness, connectedness, completeness. Transformations, linear transformations, continuity, Extreme and Intermediate Value Theorems, uniform continuity of transformations, differentiability of transformations. The chain rule, Taylor's Theorem, Implicit and Inverse function theorems, maxima and minima, the method of Lagrange multipliers. Multiple Integrals: existence, properties, change of variables theorem and evaluation of multiple integrals. A review of vector field theory, line and surface integrals, the integral theorems of Green and Stokes, the divergence theorem.

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.

Note: Students cannot receive credit for both MAT 303.1(.2) and MAT 405.1(.2).**406.1.(2) Differential Equations II**

Prerequisite: MAT 311.1(.2); MAT 303.1(.2) or MAT 405.1(.2); MAT 301.1(.2) or MAT 320.1(.2). Students who do not meet these exact prerequisites may be permitted to take this course with permission of instructor.

Theory of systems of linear differential equations, linear systems with constant coefficients, solution by matrix methods, applications. Nonlinear differential equations: existence and uniqueness of solutions, stability and the phase plane, Liapunov Method, various equations occurring in applications are qualitatively analyzed, chaos, and bifurcation.

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.

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.

414.0 Statistical Simulation Theory**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.

416.1.(2) Mathematical Probability

Prerequisite: MAT 311.1.(2) or permission of instructor.

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.

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.

421.1.(2) Abstract Algebra II

Prerequisite: MAT 420.1.(2) or permission of instructor.

The further study of algebraic structures and their applications.

426.1.(2) 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 techniques and will include such topics as permutations and combinations, recurrence relations and generating functions. Various finite structures and their applications will also be studied.

427.1.(2) Computational Methods in Graph Theory

Prerequisite: MAT 311.1.(2) or 320.1.(2) or permission of instructor.

This course discusses various graph theoretic algorithms and their application to different problems. Topics to be discussed will be chosen from the following: the connector problem, the shortest path problem, the Chinese Postman problem and Euler trails, matchings and their applications to the personnel and optimal assignment problems, colouring problems (with reference to timetabling) and flows in networks.

430.1.(2) Set Theory

Prerequisite: MAT 311.1.(2) or 320.1.(2).

Basic set theory will be developed using one of the widely accepted axiom systems. Alternate systems will be discussed. The topics will include: set operations, cardinality, ordered sets, well ordering, cardinal and ordinal numbers, and the axiom of choice.

432.1.(2) Elementary Topology

Prerequisite: MAT 311.1.(2) and 321.1.(2); MAT 430.1.(2) is recommended.

This course will begin with a study of the topology of metric spaces. Topics will include bounded and totally bounded sets, completeness and fixed point theorems. Following this, abstract topological spaces will be studied.

434.1.(2) Geometry

Prerequisite: MAT 320.1.(2) or 420.1.(2) or permission of instructor.

Many important ideas of modern mathematics, such as the axiomatic method, emerged from the study of geometry. This course examines topics in geometry from Euclid to the present day, which may include axiomatic geometry, constructive geometry, inversive geometry, projective geometry, non-Euclidean geometry, and combinatorial geometry.

Note: No credit will be given for this course subsequent to a directed study course on geometry [MAT 490.1.(2)].

436.1.(2) Theory of Functions of a Complex Variable I

Prerequisite: MAT 310.1.(2) and 311.1.(2).

The complex plane. Elementary transformations and mappings, analytic functions, infinite series and uniform convergence. Differentiation and integration in the complex plane, residue. Harmonic functions, entire and meromorphic functions. Some principles of conformal mapping theory.

Note: No credit will be given for this course simultaneously with or subsequent to MAT 435.0.

437.1.(2) Theory of Functions of a Complex Variable II

Prerequisite: MAT 436.1.(2).

A continuation of MAT 436.1.(2). Further study of analytic functions and conformal mapping theory.

Note: No credit will be given for this course simultaneously with or subsequent to MAT 435.0.

441.1.(2) Real Analysis I

Prerequisite: MAT 310.1.(2) and 311.1.(2).

Sets, functions and relations, the real number field, the least upper bound axiom, countability, sequences and subsequences, accumulation points, metric spaces, continuous functions, uniform continuity, monotone and inverse functions, compactness and connectedness, series of functions, uniform convergence, integration and differentiation of series of functions.

Note: 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, the space of continuous functions, fixed points and integral equations, Arzela-Accoli theorem, the Stone-Weierstrass theorem, Picard existence theorem for differential equations, Riemann Integrability, sets of measure zero, Lebesgue Theorem.

Note: No credit will be given for this course simultaneously with or subsequent to MAT 440.0.

445.0 Introduction to Operations Research

456.1(2) Introduction to Applied Mathematics I

Prerequisite: MAT 303.1(.2) or 405.1(.2).

Pointwise and uniform convergence of sequences and series of functions. Tests for uniform convergence, continuity, integral, and differentiability of functions defined by sequences and series. Pointwise and uniform convergence of improper integrals depending on a parameter. Tests for uniform convergences of improper integrals, consequences of uniform convergence of improper integrals, 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, eigenfunction expansions. Fourier series and Fourier integrals.

457.1(2) Introduction to Applied Mathematics II

Prerequisite: MAT 456.1(.2).

Classification of partial differential equations, linear and quasilinear first order equations, method of Lagrange. Classification and solutions of second order linear partial differential equations, the canonical forms. Modeling of wave, heat, and Laplace equations. Separation of variables, Green's functions, and Integral Transform methods. Existence and uniqueness theorems, numerical methods.

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.

500.0 Thesis

Prerequisite: permission of Department.

Research project in the mathematical sciences carried out by the student under the supervision of any member of the Department. The student will submit a thesis and present it orally. This course is open to 4th year honors students.

Directed study 6 hrs. a week. 2 semesters.

Computing Science (CPS)

Co-ordinator Paul Muir

The Department provides a broad range of courses in computing science, including introductory courses intended for students with little background in the area, preparatory courses for students intending to enter fields requiring computing science, and specialized courses for more advanced computing science students. The Department also offers concentrations, major, and honors degree programs in computing science; these degrees reflect the nature of computing science, notably a core of computer science courses with an additional emphasis in mathematics. The Department also offers a minor in computing science.

Preparatory Courses

CSC 226.1(.2)/CSC 227.1(.2) is intended to be the first pair of courses for all students who intend to pursue further studies in computing science.

Requirements for a Concentration in Computing Science

A concentration in computing science is offered for students working towards the degree of Bachelor of Science. The Departmental requirements for a concentration in computing science are:

1. CSC 226.1(.2) and 227.1(.2)
2. CSC 327.1(.2) and 328.1(.2)
3. CSC 342.1(.2) and 342.1(.2)
4. MAT 210.1(.2) and 211.1(.2)
5. MAT 305.1(.2)
6. One and a half (1.5) additional credits in CSC courses numbered 306 or above.
7. Additional Faculty of Science regulations: 3(a) a half (0.5) credit in English [EGL 205.1(.2)] and a half (0.5) credit in Humanities, Classics, English other than EGL 205.1(.2), History, Philosophy, Religious Studies and Modern Languages courses on literature and/or culture; 3(c) two (2.0) credits in Arts/Economics; 3(e) four (4.0) credits in other sciences (not MAT or CSC); and 3(f) two (2.0) free electives.

Requirements for a Major in Computing Science

A major in computing science is offered for students working towards the degree of Bachelor of Science. The Departmental requirements for a major in computing science are:

1. CSC 226.1(.2) and 227.1(.2)
2. CSC 327.1(.2) and 328.1(.2)
3. CSC 341.1(.2) and 342.1(.2)
4. One (1.0) credit chosen from CSC 428.1(.2), 430.1(.2), 431.1(.2), and 451.1(.2)
5. MAT 210.1(.2) and 211.1(.2)
6. MAT 305.1(.2), 308.1(.2), 216.1(.2), and 320.1(.2)
7. One (1.0) additional credit in MAT numbered 306 or above.
8. Two (2.0) additional credits in CSC courses numbered 306 or above, at least one (1.0) of which is at the 400 level or above.
9. Additional Faculty of Science regulations: 6(a) one (1.0) credit in English, 6(c) two (2.0) credits in Arts/Economics, 6(e) four (4.0) credits in other sciences (not MAT or CSC), 6(f) three (3.0) free electives.

Requirements for a Double Major in Computing Science and Mathematics

1. MAT 210.1(.2) and MAT 211.1(.2)
2. CSC 226.1(.2) and CSC 227.1(.2)
3. MAT 310.1(.2) and MAT 311.1(.2)
4. MAT 320.1(.2) and MAT 321.1(.2)
5. CSC 327.1(.2) and CSC 328.1(.2)
6. CSC 341.1(.2) and CSC 342.1(.2)
7. MAT 305.1(.2), MAT 308.1(.2), and MAT 216.1(.2)
8. One (1.0) credit chosen from CSC 428.1(.2), CSC 430.1(.2), CSC 431.1(.2) and CSC 451.1(.2)
9. One and one half (1.5) additional credits in MAT courses numbered 306 or above, at least one (1.0) of which is at the 400 level or above.
10. Two (2.0) additional credits in CSC course numbered 306 or above, at least one (1.0) of which is at the 400 level or above.
11. One (1.0) additional credit in MAT or CSC courses numbered 306 or above.
12. Additional Faculty of Science regulations: 6(a) one (1.0) credit in English, 6(c) two (2.0) credits in Arts/Economics, 7(b) two (2.0) credits in other sciences (not MAT or CSC), 7(c) two (2.0) free electives.

Requirements for a Double Major in Computing Science and a subject other than Mathematics.

- 1.-7. Same as for Major in Computing Science (above).
8. One (1.0) additional credit in CSC courses numbered 306 or above.
9. Additional Faculty of Science regulations: 6(a) one (1.0) credit in English, 6(c) two (2.0) credits in Arts/Economics, 6(f) eight (8.0) additional credits, with a minimum of six (6.0) credits in the other major subject 7(a). (The two (2.0) MAT credits from requirement 6. of the CPS honors are used to satisfy Faculty of Science regulation 7(b).)

Requirements for an Honors in Computing Science

The honors program is designed for majors in computing science of above average ability. Majors in the second year with an overall quality point average of at least 2.50 and with a quality grade point average of at least 3.00 in their CSC and MAT 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 computing science are:

1. CSC 226.1(.2) and 227.1(.2)
2. CSC 327.1(.2) and 328.1(.2)
3. CSC 341.1(.2) and 342.1(.2)
4. CSC 428.1(.2), 430.1(.2), 431.1(.2), and 451.1(.2)
5. MAT 210.1(.2) and 211.1(.2)
6. MAT 305.1(.2), 308.1(.2), 216.1(.2), and 320.1(.2)
7. Two (2.0) additional credits in MAT numbered 306 or above.
8. Four (4.0) additional credits in CSC courses numbered 306 or above, at least two (2.0) of which are at the 400 level or above.
9. Additional Faculty of Science regulations: 6(a) one (1.0) credit in English, 6(c) two (2.0) credits in Arts/Economics, 12(b) three (3.0) credits in other sciences (not MAT or CSC).

Requirements for a Double Honors in Computing Science and Mathematics

1. MAT 210.1(.2) and MAT 211.1(.2)
2. CSC 226.1(.2) and CSC 227.1(.2)
3. MAT 310.1(.2) and 311.1(.2)
4. MAT 320.1(.2) and MAT 321.1(.2)
5. CSC 327.1(.2) and CSC 328.1(.2)
6. CSC 341.1(.2) and CSC 342.1(.2)
7. MAT 305.1(.2), MAT 308.1(.2), and MAT 216.1(.2)
8. CSC 428.1(.2), CSC 430.1(.2), CSC 431.1(.2) and CSC 451.1(.2)
9. Three and one half (3.5) additional credits in MAT courses numbered 306 or above, at least two (2.0) of which are at the 400 level or above.
10. Three (3.0) additional credits in CSC courses numbered 306 or above, at least two (2.0) of which are at the 400 level or above.
11. Additional Faculty of Science regulations: 6(a) one (1.0) credit in English, 6(c) two (2.0) credits in Arts/Economics, 7(d) one (1.0) credit in other sciences (not MAT or CSC).

Requirements for a Double Honors in Computing Science and a subject other than Mathematics

- 1.-6. Same as Computing Science Honors (above).
7. One (1.0) additional credit in MAT courses numbered 306 or above.
8. One (1.0) additional credit in CSC courses numbered 306 or above.
9. Additional Faculty of Science regulations: 6(a) one (1.0) credit in English, 6(c) two (2.0) credits in Arts/Economics, 12(c) seven (7.0) additional credits in the other honors subject. (One (1.0) MAT credit from requirement 6. is used to satisfy Faculty of Science regulation 12(b).)

Notes: (i) 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.
(ii) Students taking a concentration, major, or honors in computing science are permitted credit for at most one of MAT 207.1(.2), BIO 308.1(.2), ECO 207.1(.2), MSC 207.1(.2), or PSY 350.1(.2), and shall not be permitted credit for any of these courses simultaneously with or subsequent to MAT 216.1(.2).
(iii) Courses with MAT or CSC designation cannot be used to satisfy requirements 6(e) or 12(b) of the Faculty of Science regulations regarding Science electives outside the discipline.

- (iv) Related courses to a maximum of one and one half (1.5) credits offered by other Departments may be allowed for CSC credit, with approval of the Department of Mathematics and Computing Science.
- (v) Students pursuing a major in Computing Science can also complete a minor in Mathematics by taking MAT 310.1(.2) and MAT 311.1(.2), under requirement 7, of the major degree, and by taking MAT 321.1(.2) and an additional half (0.5) credit in MAT, under requirement 9, of the major degree, Faculty of Science regulation 6(f) on free electives.
- (vi) Students pursuing an honours in Computing Science can also complete a minor in Mathematics by taking MAT 310.1(.2), MAT 311.1(.2), MAT 321.1(.2) and an additional half (0.5) credit in MAT, under requirement 7. of the honours degree.

Requirements for a Minor in Computing Science

It is possible to obtain a minor in computing science by completing five (5.0) credits in CSC in addition to satisfying the Faculty of Science regulations for a minor. These courses must include:

1. CSC 226.1(.2) and 227.1(.2) (1.0 credit)
2. CSC 327.1(.2), CSC 328.1(.2), CSC 341.1(.2), and CSC 342.1(.2)
3. Two (2.0) additional credits in CSC courses numbered 306 or above.

Computing Science and Business Administration (CSC)

Co-ordinator P. Muir

This is an interdisciplinary four year degree combining Computing Science courses, taught in the Department of Mathematics and Computing Science, with a selection of courses taught in the Faculty of Commerce. This program is designed to meet the increasing demand for people with a solid technical knowledge of Computing Science who also understand the application of this technology to business problems.

To declare this program as a major, students should consult with the Co-ordinator of Computing Science in the Department of Mathematics and Computing Science. Students must complete the twenty (20.0) credits as listed below. Due to restrictions associated with the prerequisite structure, please note that certain courses should be taken by the end of the period indicated so that the program can be completed in four years.

1. Computing Science courses (6.0 credits)
 - 1.1 *CSC 226.1(.2) and *CSC 227.1(.2) (first year) (1.0 credit)
 - 1.2 *CSC 327.1(.2), *CSC 328.1(.2), *CSC 341.1(.2), and *CSC 342.1(.2) (second year) (2.0 credits)
 - 1.3 *one (1.0) additional CSC credit in third year
 - 1.4 *two (2.0) additional CSC credits in fourth year

The credits referred to in 1.3 and 1.4 must be numbered 306.1(.2) or above and at least two (2.0) of these credits must be at the 400 level or above. With the approval of the Program Co-ordinator, students may be allowed to take up to one-and-a-half (1.5) computing science credits given by other departments.
2. Mathematics and Statistics courses (2.5 credits)
 - 2.1 *MAT 210.1(.2) and *MAT 211.1(.2) (first year) (1.0 credit)
 - 2.2 *MAT 305.1(.2) and *MAT 320.1(.2) (third year) (1.0 credit)
 - 2.3 *MSC 207.1(.2) or MAT 216.1(.2) (second year) (0.5 credit)
3. Commerce courses (7.0 credits)
 - 3.1 *MGT 281.1(.2) (first year or first term of second year) (0.5 credit)
 - 3.2 *MGT 383.1(.2) and *MGT 384.1(.2) (third year) (1.0 credit)
 - 3.3 *MGT 489.1(.2) (fourth year) (0.5 credit)
 - 3.4 *ACC 241.1(.2) and *ACC 242.1(.2) (second year) (1.0 credit)
 - 3.5 *ACC 332.1(.2) (third year) (0.5 credit)

- 3.6 *ACC 323.1(.2) (fourth year) (0.5 credit)
 3.7 *FIN 360.1(.2) and *FIN 361.1(.2) (third year) (1.0 credit)
 3.8 *MKT 270.1(.2) (third year) (0.5 credit)
 3.9 *MSC/CIS 425.1(.2) (fourth year) (0.5 credit)
 3.10 *ECO 201.1(.2) and *ECO 202.1(.2) (first year preferably or second year) (1.0 credit)

4. Other courses (4.5 credits)

- 4.1 EGL 205.1(.2) and one half (1.5) credits in humanities (2.0 credits)
 4.2 Arts and/or Economics courses that satisfy regulation 6(e) of the Faculty of Science, except only 1.0 credit is required
 4.3 Science electives that satisfy regulation 6(e) of the Faculty of Science, except only 2.0 credits are required
 4.4 Free elective (0.5 credit)

Notes: (i) Courses marked with an asterisk (*) are considered as major courses for the purposes of regulation 9 of the Faculty of Science.

(ii) All electives are to be at the 200 level or above.

(iii) Credit will not be given for any introductory computing course if taken subsequent to CSC 226.1(.2).

(iv) Credit will not be given for MSC 205.1(.2), MSC 206.1(.2) or other preparatory or introductory courses if taken subsequent to, or concurrent with MAT 210.1(.2) or MAT 211.1(.2).

(v) For students in this program, MAT 210.1(.2) can replace MSC 205.1(.2) or MSC 206.1(.2) as a prerequisite for other commerce courses.

(vi) For students in this program, CSC 227.1(.2) can replace MSC/CIS 225.1(.2) as a prerequisite for other commerce courses. However, a knowledge of the topics covered in MSC/CIS 225.1(.2) will be assumed in other courses.

226.1(.2) Introduction to Computing Science and Programming

Prerequisite: There is no formal prerequisite for this course; however, some prior experience with analytical thinking is highly recommended.

This course is designed to introduce the student to some of the key concepts in computing science and simultaneously provide introductory hands-on experience using a modern programming language. General topics will include a brief history of computing; the place of hardware, software, and policies in any computing environment; a high-level view of the components of a computing system; and the tools one can expect to find in any programming environment. Programming language topics will include input/output; simple data types; operators and expressions; looping and decision-making control constructs; subprograms and parameter passing; overall program structure and programming style considerations. Problem-solving and program-design strategies will include divide-and-conquer and top-down design with step-wise refinement. Students will design algorithms with data input and output to solve particular problems, and later implement those solutions as computer programs in the current programming language of choice.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

227.1(.2) Intermediate Programming and Problem Solving

Prerequisite: CSC 226.1(.2).

This course is designed to extend the student's knowledge of, and provide additional hands-on experience with, the programming language encountered in CSC 226, in the context of the structured data types provided by that language, and within the larger contexts of abstract data types and more complex problem-solving situations. Techniques for managing file input and output in the current language will also be studied. A number of classical algorithms and data structures for the storage and manipulation of information of various kinds in a computer's internal memory will be studied. The student will acquire the knowledge that comes from actually

implementing a non-trivial abstract data type and the experience that comes from having to make use, as a client programmer, of an abstract type that has already been implemented.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

301.1(.2) Data Structures and Numerical Methods for Engineers

Prerequisites: CSC 226.1(.2) or EGN 204.1(.2)

This class introduces students to system analysis and software techniques. Topics covered include data structures such as stacks, queues, multiple linked lists, searching and sorting algorithms, and their implementation in an object-oriented programming language. Students use linear algebra and numerical methods in engineering examples, while leaning to implement properly structured solutions.

Note: This course is intended only for Engineering students. Computing Science students (CPS or CSC) should take CSC 341.1(.2) and CSC 342.1(.2) instead. No credit will be given for this course simultaneously with or subsequent to CSC 341.1(.2).

Classes 3 hrs. and recitation 1.5 hrs. a week. 1 semester.

327.1(.2) Digital Logic and Assembly Level Machine Organization

Prerequisite: CSC 227.1(.2).

This course considers data representation, digital logic and computer organization at the assembly language level. Data will be represented as sequences of symbols and interpreted as numbers (binary, signed, unsigned, decimal, etc.) or text. The student will be introduced to the concept of computation at the digital logic level by studying devices for storing data, transferring data, and making decisions based on data patterns. Such devices will include flip-flops, registers, tristates, bus structures, multiplexers, comparators, and adders. The fetch-execute cycle of a processor, as well as the structure and addressing modes of machine instructions, will be considered. Students will obtain experience in the assembly language of a particular processor.

Classes 3 hrs. and recitation 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 CSC 326.0.

328.1(.2) Computer Architecture

Prerequisite: CSC 327.1(.2).

This course builds on the experience obtained in CSC 327. The fetch-execute cycle of a processor is considered in more detail by examining the data path and the control unit. The abstract view of the memory system is refined by discussing storage systems, the memory hierarchy, cache memories, and the concept of virtual memory. The course will examine the input/output subsystem of a computer that serves as an interface with peripheral devices. In particular, interrupt and synchronization mechanisms will be considered. Some basic principles of data communications will also be discussed with examples of communications protocols including the TCP/IP protocol. Alternative computer architectures will be discussed briefly.

Note: No credit will be given for this course simultaneously with or subsequent to credit given for CSC 326.0.

Classes 3 hrs. and recitation 1 1/2 hrs. a week. 1 semester.

341.1.(2) Algorithmic Foundations of Computing Science

Prerequisite: CSC 227.1.(2).

This course provides an introduction to some of the fundamental theoretical concepts in computing science. These theoretical concepts will be applied to some programming problems. The course will introduce the basis for evaluating algorithms. This basis will be used to analyze various searching and sorting algorithms. Students will be introduced to the concept of lower-bound time requirements for specific problems. Examples of various problem solving strategies such as greedy algorithms, divide-and-conquer, and backtracking will be discussed. Context free languages will be studied using BNF notations and derivation trees.

Classes 3 hrs. and recitation 1 1/2 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 Algorithms

Prerequisite: CSC 341.1.(2).

This course provides an introduction to data structures and associated algorithms. Students will build on the theoretical and programming skills developed in CSC 226/227 and CSC 341 through a systematic study of some of the fundamental computing science concepts. The course will use the basis for evaluating algorithms, established in CSC 341, to study various data structures and related operations. The data structures that will be studied in this course include lists, stacks, queues, hash tables, binary trees, and binary search trees. The operations on these data structures include creation, destruction, insertions, deletions, searching, and sorting. Contiguous and linked designs and corresponding implementations of these data structures will be studied. Students will be expected to create some of the data structures as well as use a library of existing data structures. The advantages and disadvantages of using these data structures will be studied. External data storage structures, file structures, and relational databases will also be briefly reviewed.

Classes 3 hrs. and recitation 1 1/2 hrs. a week. 1 semester.

Note: No credit will be given simultaneously with or subsequent to CSC 325.0 or CSC 345.0.

355.1.(2) Internet Technologies and Web Programming

Prerequisite: CSC 227.1.(2).

This course will discuss a number of fundamental architectures, protocols and scripting languages for displaying and transferring data of various kinds in the context of the Internet and the World Wide Web. Students will gain experience with web programming concepts and techniques.

Note: Credit cannot be given to students who have received credit in CSC 495.

Classes 3 hrs. a week plus recitations 1.5 hrs. a week. 1 semester.

421.1.(2) Data Communications and Networking**423.1.(2) Cryptography**

Prerequisite: CSC 342.1.(2), MAT 305.1.(2), and MAT 320.1.(2).

This course provides an introduction to various aspects of data security. Possible topics: classical encryption methods such as Vignere and Vernan ciphers; the Data Encryption Standard; key distribution methods and public key encryption; and authentication using digital signatures. Applications of these methods in the design of protocols for data privacy and security will also be studied.

426.1.(2) Distributed Systems**428.1.(2) Software Engineering**

Prerequisite: CSC 342.1.(2).

In this course, students will obtain experience in the development of large scale software systems. The software life-cycle will be studied in detail. Issues of software documentation, reliability, and maintenance will be discussed. Several strategies for specification (formal and informal), design (functional, top-down, object-oriented, etc.), implementation, and verification and validation will be considered. The course will involve a major project that will expose students to the stages of the software life-cycle. Students should expect to work in teams.

430.1.(2) Principles of Programming Languages

Prerequisite: CSC 342.1.(2) and MAT 305.1.(2).

This course is designed to introduce the student to some of the key concepts underlying all programming languages by comparing and contrasting major programming language paradigms such as procedural, functional, logic, object-oriented, and parallel. Topics may include history and evolution of programming languages; programming language design goals, the place of programming languages in the programming environment; virtual machines; data representation, manipulation and sharing; type checking; storage management; control structures; language mechanisms that support modularity; syntax and semantics. The laboratory component will provide hands-on experience with several different languages from different paradigms.

Classes 3 hrs. and recitation 1 1/2 hrs. a week. 1 semester.

Note: This course was formerly CSC 332.1.(2). No credit will be given for this course if a student has already taken CSC 332.1.(2).

431.1.(2) Operating Systems

Prerequisite: CSC 328.1.(2).

Students will study various aspects of operating systems with emphasis on the following topics: history, evolution, and philosophies; tasking and processes; process coordination and synchronization; scheduling and dispatch; physical and virtual memory organization; device management; file systems and naming; security and protection; communications and networking; distributed operating systems; and real-time concerns. Examples of two or more operating systems will be used to gain some systems programming experience.

434.1.(2) Programming Language Translation**451.1.(2) Theory of Computation**

Prerequisite: CSC 341.1.(2) and MAT 305.1.(2).

This course provides an introduction to some of the fundamental theoretical concepts in computing science. Students will be introduced to the concepts of decidable, P, NP, NP-complete, and NP-hard problems. Two classes of languages of interest to computing scientists, namely, regular and context free languages, and corresponding automata for recognizing these languages, will also be studied. A brief discussion on the semantics of programming languages will be included. The concept of automata will be further extended using Turing machines. Turing machines will be used to explore the concept of decidability along with examples of decidable and undecidable problems.

452.1(2) Algorithm Analysis

Prerequisite: CSC 342.1(.2) and MAT 305.1(.2).

This course will build on the concepts of algorithm analysis introduced in CSC 341. Some of the key techniques of efficient algorithm design that will be discussed: divide and conquer; greedy methods; dynamic programming; graph traversal; and change of representation. Measuring algorithm performance and lower bounds for various problems will be studied. An introduction to complexity theory-P, NP, polynomial time reducibility, and NP-completeness- will also be provided

461.1(2) Database Systems

Prerequisite: CSC 342.1(.2) and MAT 305.1(.2).

This course provides an introduction to the design, implementation, use and maintenance of databases. Topics will include: data models such as the entity-relationship model, the relational model, and the object-oriented model; relational languages such as relational algebra, relational calculus, and SQL; the theory of normal forms of database design; use of indexes for efficient data retrieval; and database implementation using a commercial database management system. Other topics may be included, such as query optimization, database control, and distributed database systems.

462.1(2) File Structures

Prerequisite: CSC 342.1(.2) and MAT 305.1(.2).

This course provides the student with the tools and techniques required to organize and efficiently maintain data on a secondary storage devices. The course will consider the implementation and performance of structures such as fields, records and buffers; primary and secondary indexes; multi-level indexes and B-trees; indexed sequential files; and hash structures. Also included will be some discussion of advanced sort and merge algorithms for secondary storage.

463.1(2) Numerical Software**465.1(2) Object-Oriented Programming**

Prerequisite: CSC 342.1(.2) and MAT 305.1(.2).

This course provides an introduction to object-oriented analysis, design, and programming. Emphasis will be on the creation of reusable software. The object-oriented approach to software development will be compared and contrasted with other approaches, such as the classical "structured" approach. Students will gain hands-on experience by programming in a suitable object-oriented programming language.

471.1(2) Computer Graphics**474.1(2) Information Retrieval****475.1(2) Human Computer Interaction**

Prerequisite: CSC 342.1(.2).

The objective of this course is to teach students how to design, prototype, and evaluate user interfaces using a variety of methods. Topics covered include the following: human capabilities; interface technology; interface design methods; and interface evaluation.

476.1(2) Computer Vision and Digital Image Processing

Prerequisite: CSC 342.1(.2).

This course provides an introduction to the concepts used in computer vision and digital image processing. Computer vision techniques extract information from an image, while image processing techniques modifies the image for viewing by the human eye. Topics covered include the following: sampling and resolution, image processing, edge detection, segmentation, discrete image transforms, restoration and enhancement, and image compression.

482.1(2) Artificial Intelligence

Prerequisite: CSC 342.1(.2), MAT 216.1(.2), and MAT 305.1(.2).

This course provides a general introduction to artificial intelligence (AI). The course will consider philosophical, mathematical, experimental, and implementation aspects of such topics as problem solving, searching, game playing, genetic algorithms, learning, neural networks, natural language processing, vision, knowledge representation, logic, expert systems, reasoning under uncertainty, fuzzy sets, planning, and robotics. In addition to a theoretical introduction, students will also gain experience using on or more of the popular AI tools.

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.

500.0 Research Thesis

Prerequisite: honors standing and permission of the thesis committee.

Research project in computing science carried out by the student under the supervision of any member of the Department. The student will submit a thesis and present it orally.

Modern Languages and Classics

Classics: Ancient History (CLA) - Classical Literature and Civilization (CLA) - Ancient Egyptian (EGP) - Greek (GRE) - Latin (LAT)

Modern Languages: Arabic (ARA) - Chinese (CHI) - English as a Second Language (ESL) - French (FRE) - German (GER) - Italian (ITA) - Japanese (JPN) - Spanish (SPA)

Chairperson, Professor

P. Bernard

Classics

Professor

V. Tobin

Associate Professor

G. Thomas

French

Professor

K. Flikeid

Associate Professors

J. Cauville, G. Nahrebecky

Assistant Professor

S. Beaulé

German

Professor

E. Enns

Associate Professor

M. Heukaeufer

Japanese

Assistant Professor

C. Beaupré

Spanish

Professor

A. Farrell

Department Policy - Modern Languages and Classics

- The Department of Modern Languages and Classics offers major programs in Classics, French, German Studies, Spanish and Hispanic Studies; language and literature courses in ancient Egyptian, Greek, and Latin; language courses in Arabic, Chinese, Italian, and Japanese.
- The student's eligibility to enrol in language, culture, and literature courses, and in specific sections of those courses, is determined by the Chairperson in consultation with the instructor 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.
- In order to ensure the academic integrity in language courses, especially at the lower levels of instruction, the Department of Modern Languages and Classics does not allow native or near-native speakers of a particular target language to enrol in courses at the 200 level or lower.
- 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 are required to take a placement test (unless they have previously successfully completed a French course at this University at the 300-level).
- Students should note that courses on literature and/or culture fulfill the BA Humanities requirement 3(c) but do not fulfill the 3(b) requirement. The courses designated with an * in front of the number satisfy the 3(c) requirement.

Majors and Minors

Students intending to major or minor in Classics, French, German Studies, Spanish or Hispanic Studies should consult the Co-ordinator of the program or 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.

Concentrations

To obtain a concentration in any of the subject areas in this Department in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of fifteen {15.0} credits), a minimum of four (4.0) credits is required; also a minimum cumulative quality point average of 2.00.

Certificate Programs

The Department of Modern Languages offers five certificate programs:

- Certificate of Chinese Studies (CHS)
- Certificate of Proficiency in French (CPF)
- Certificate of German Language and Culture (GLC)
- Certificate of Japanese Studies (JPS)
- Certificate in Spanish Language and Hispanic Studies (SLH)

Information about a particular certificate program is found in the descriptions of the language programs with which it is associated found in Section 5 of the *Academic Calendar*.

Programs in Chinese

Certificate of Chinese Studies (CHS)

Canada is an integral part of the Pacific Rim, an area of rapid economic and political change. This certificate program in Chinese Studies is designed to provide linguistic, cultural and practical knowledge to persons interested in studying about or working in China. The program consists of four (4.0) credits. It is intended for undergraduate students, persons already holding degrees in any discipline, and mature students with relevant work experience.

Admission

The Certificate of Chinese Studies requires a formal application for admission. The official approval of the Asian Studies Co-ordinator is a prerequisite for admission to the program. Students majoring in Asian Studies at Saint Mary's University are not eligible for this program.

A student of the program must complete at least three (3.0) credits at Saint Mary's University. Relevant academic courses, work experience and linguistic capability may be considered for credit. Applicants should submit a resume of relevant work experience, official university transcripts and any other relevant documentation.

Program Courses

This program consists of two (2.0) required credits and a number of optional credits. All students are required to take Chinese 100.0 (Introductory Modern Chinese) and Chinese 200.0 (Intermediate Modern Chinese). Students must also select two (2.0) optional credits in at least two different disciplines from the following courses:

ANT 326.1(.2); ASN 300.1(.2); ASN 310.1(.2); ASN 450.0; GPY 380.1(.2); HIS 222.1(.2); HIS 223.1(.2); HIS 381.1(.2); HIS 382.1(.2) HIS 383.1(.2); HIS 511.0; REL 327.1(.2); REL 345.1(.2).

At least two (2.0) credits must be at the 300 level or above. Detailed descriptions are found under Departmental listing. Not all courses will be offered each year.

Requirements for Graduation

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

Programs in Classics

The Classics Program encompasses ancient languages, literature, history and culture in Greek, Roman, and Near Eastern societies. 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.

Students majoring in Classics must study at least one of the ancient languages. Entry to a graduate program in Classics normally means the successful completion of at least three (3.0) full courses at the undergraduate level in one ancient language (Latin or Greek) and two full (2.0) courses in the other. Latin is a valuable asset for students majoring in French, German or Spanish.

Major in Classics

A major in Classics comprises seven (7.0) credits, four (4.0) of which must be at the 300 level or above. One (1.0) credit is required in an ancient language, e.g., Classical Egyptian, Greek, or Latin. Students in Arts must maintain a minimum quality point average of 2.00 (an average grade of C) in order to achieve the Classics major.

Minor in Classics

A minor in Classics consists of at least four (4.0) credits, two of which must be at the 300 level or above. To obtain a minor students must achieve a minimum quality point average of 2.00 (an average grade of C or better) in the courses of the minor.

Programs in French

The following programs are available in French: Honors, a major, a minor, a concentration, study abroad, and a certificate of proficiency. See below for details. The Department offers a balanced program involving courses in language, culture and literature.

Those with a solid background in French, especially Francophones or those having attended a French school, are to begin their studies with courses beyond FRE 250.0. This condition may also apply to certain high school immersion graduates. Native, near-native, or fluent speakers of French may not enroll in courses at the 200 level or below. Courses at the 200 and 300 level cannot be taken concurrently.

FRE 250.0 is the normal starting point for majors. High school graduates having completed the "Core" program should enroll in FRE 200.0. Students who have taken French at another university are asked to consult with the Chairperson before registering.

Normally, a placement test is administered on the first day of classes in FRE 110.0, 200.0, and 250.0, and a short composition in 307.1(.2) and 308.1(.2), in order to provide students with the course that best suits their needs. Students having previously taken FRE 110.0 or 200.0 at Saint Mary's are not required to take the placement test. Since the test is administered on the first day of classes, attendance at this first class is required.

Students interested in teaching French as a career are strongly advised to seek assistance from the Department on course selection and teacher training programs as early as possible.

Honors in French

All prospective honors students in French should refer to the section of this *Calendar* pertaining to honors degrees. Students with a minimum

cumulative quality point average of 3.00 can apply to the Registrar for admission to the honors program after having satisfied the requirements of the major program.

Honors degrees in French consist of ten (10.0) credits. Beyond the requirements for the French major, three (3.0) additional French credits are required: FRE 500.0 The Honors Essay, and two (2.0) credits at the 300-400 level (other than FRE 307.1(.2), 308.1(.2) and FRE 350.1(.2) and 351.1(.2).

Students should discuss the topic and nature of the honors essay with the appropriate faculty member prior to their entry into the program.

Major in French

A major in French normally consists of at least seven (7.0) credits in French beyond FRE 231.1(.2) with the following requirements:
 FRE 307.1(.2); 308.1(.2) and 350.1(.2); 351.1(.2)
 One (1.0) 300 or 400 level credit in culture;
 One (1.0) 400 level credit in literature;
 One (1.0) 400 level credit in language;
 One (1.0) 400 level FRE elective.

Language Courses	Culture Courses	Literature Courses
110.0	305.1(.2)	350.1(.2)
200.0	310.1(.2)	351.1(.2)
230.1(.2)	312.1(.2)	405.1(.2)
231.1(.2)	405.1(.2)	410.1(.2)
250.0	410.1(.2)	412.1(.2)
307.1(.2)	412.1(.2)	416.1(.2)
308.1(.2)	426.1(.2)	417.1(.2)
320.1(.2)	427.1(.2)	418.1(.2)
321.1(.2)	428.1(.2)	422.1(.2)
325.1(.2)	433.1(.2)	426.1(.2)
333.1(.2)	434.1(.2)	427.1(.2)
335.1(.2)	440.1(.2)	428.1(.2)
400.1(.2)		433.1(.2)
435.1(.2)		434.1(.2)
436.1(.2)		451.1(.2)
437.1(.2)		452.1(.2)
438.1(.2)		460.1(.2)
		461.1(.2)

Minor in French

A minor in French consists of four (4.0) credits in French beyond FRE 110.0, with at least two (2.0) of these being at the 300 level or above.

Year Abroad at the Université Catholique d'Angers, France

This Study Abroad program consists of a month-long intensive French language session in September (optional) and one or two semesters (October to January and February to June) of course work in language and related subjects. One-month programs are also offered in July and August. Students who successfully complete their programs receive credits at Saint Mary's University: two and a half (2.5) credits per semester and one (1.0) credit each for the months of July, August or September. To be eligible to participate in this Study Abroad program, students must have the approval of the Co-ordinator of the program and the Chairperson, and must have a QPA of 2.00 or above. Although students will take a placement test upon their arrival in France, it is strongly advised that they complete at least one (1.0) credit in French at Saint Mary's in the year prior to their departure.

Information sessions about the Study Abroad program will be held in the months of October and February every year. Please inquire at the secretary's office, 902-420-5808.

With the Department's approval, a student may undertake a year of study at another French-speaking university.

Certificate of Proficiency in French for Non-Majors (CPF)

This certificate signifies that the student has earned four (4.0) credits beyond FRE 200.0, has passed an oral and written examination and, in so doing, has demonstrated an acceptable level of proficiency in understanding, speaking, reading and writing. Students interested in the certificate program should consult with the Chairperson in order to determine their program of study and to register for the examination which is usually given in the spring. The student's transcript will bear an entry signifying that the certificate has been awarded.

Programs in German

The following programs are available in German Studies: a major, a minor, a concentration, and a certificate in German Language and Culture.

Major in German Studies

A major in German Studies consists of at least six (6.0) credits. Four (4.0) compulsory credits in German language/literature. At least two (2.0) of those 4.0 credits have to be at the 300 or 400 level. The remaining two (2.0) credits may be taken in German language, literature, culture or may be from courses given in English and taken from other departments. Those courses will stress German history, cultural 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.

Minor in German Studies

A minor in German Studies consists of four (4.0) credits, with at least two (2.0) of these being at the 300-level or above. Normally, the first two (2.0) courses for the minor will be 100- and 200-level German language courses, followed by two (2.0) credits to be chosen from offerings in literature and cultural studies. Students entering the minor program with previous knowledge of German must consult the Co-ordinator for German Studies or the Chairperson of Modern Languages and Classics. A minimum cumulative quality point average of 2.00 is required for courses in the minor program.

Certificate in German Language and Culture (GLC)

Germany plays an important role in the evolving political and economic reality of western Europe. The certificate program in German language and culture is designed to provide linguistic and cultural knowledge to persons interested in studying and/or working in a German-speaking country.

The program consists of four (4.0) credits and is intended for undergraduate students and persons already holding degrees in any discipline.

Admission

Admission to the program leading to the Certificate in German Language and Culture requires a formal application for admission and the official approval of the Co-ordinator for German Studies. Application forms are available from the Registrar. Students majoring in German at Saint Mary's University are not eligible for this program. Three (3.0) of the four (4.0) credits must be completed at Saint Mary's.

Program Courses

The program consists of two (2.0) required credits in language – GER 100.0 and/or 201.1(.2) or 202.1(.2), and/or 311.1(.2) and a number of optional credits. These optional credits must be at the 300 level or above, and will be chosen from among the following courses:

GER 304.1(.2) German Culture and Civilization
 GER 307.1(.2).0 Introduction to German Literature
 GER 308.1(.2).0 Modern German Literature
 GER 330.1(.2) Introduction to Business German I
 GER 331.1(.2) Introduction to Business German II
 HIS 304.0 Europe 1848-1989
 HIS 405.1(.2) Society and Culture in Early Modern Europe
 HIS 406.1(.2) Ideas and Politics in Early Modern Europe

Other courses are possible, subject to the approval of the Co-ordinator for German Studies.

Requirements

A minimum cumulative quality point average of 2.00 in this certificate program is required. Students who have completed all the courses without being officially admitted to the program will not be accredited.

Programs in Japanese

The Certificate of Japanese Studies is available as outlined below.

Certificate of Japanese Studies (JPS)

Canada is an integral part of the Pacific Rim, an area of rapid economic and political change. This certificate program in Japanese Studies is designed to provide linguistic, cultural and practical knowledge to persons interested in studying about or working in Japan. The program consists of four (4.0) credits. It is intended for undergraduate students, persons already holding degrees in any discipline, and mature students with relevant work experience.

Admission

The Certificate of Japanese Studies requires a formal application for admission. The official approval of the Asian Studies Co-ordinator is a prerequisite for admission to the program. Students majoring in Asian Studies at Saint Mary's University are not eligible for this program.

A student of the program must complete at least three (3.0) credits at Saint Mary's University. Relevant academic courses, work experience and linguistic capability may be considered for credit. Applicants should submit a resume of relevant work experience, official university transcripts and any other relevant documentation.

Program Courses

This program consists of two (2.0) required credits and a number of optional credits. All students are required to take Japanese 100.0 (Introductory Japanese) and Japanese 200.0 (Intermediate Japanese). Students must also select two (2.0) optional credits in at least two different disciplines from the following courses:

ANT 326.1(.2); ANT 327.1(.2); ASN 300.1(.2); ASN 302.1(.2); ASN 303.1(.2); ASN 410.1(.2); GPY 360.1(.2); HIS 222.1(.2); HIS 223.1(.2); HIS 354.1(.2); HIS 355.1(.2); HIS 356.1(.2); HIS 511.0; REL 327.1(.2); REL 340.1(.2).

At least two (2.0) credits must be at the 300 level or above. Detailed descriptions are found under Departmental listing. Not all courses will be offered each year.

Requirements for Graduation

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

Programs in Spanish and Hispanic Culture

The following programs are available in the area of Spanish and Hispanic Culture: a major, a minor, a concentration, and a Certificate in Spanish Language and Hispanic Studies.

Major in Spanish or Hispanic Studies

A major in Hispanic Studies (SPS) consists of at least six (6.0) credits, four (4.0) of which must be at the 300-level or above. Courses counting towards the major are normally chosen from among the SPA courses in language, literature, culture. After consultation with the Co-ordinator for Spanish or the Chairperson of Modern Languages and Classics, these can be supplemented [to a maximum of two (2.0) credits] by courses from other

disciplines whose principal subjects are the arts, history or current reality of Spain and Spanish-speaking Latin America.

Minor in Spanish or Hispanic Studies

A minor in Spanish consists of four (4.0) credits, with at least two (2.0) of these being at the 300 level or above. Normally, the first two (2.0) courses for the minor will be 100 and 200 level Spanish language courses, followed by two (2.0) credits to be chosen from offerings in literature and cultural studies. Students entering the minor program with previous knowledge of Spanish should consult the Co-ordinator for Spanish. A minimum cumulative quality point average of 2.00 is required for courses in the minor program.

Certificate in Spanish Language and Hispanic Culture (SHC)

More than 225 million people in the world today have Spanish as their first language, and Latin America continues to be a strong trading partner for Canada.

The certificate program in Spanish Language and Hispanic Culture is designed to provide linguistic and cultural knowledge to persons interested in studying and/or working in a Spanish-speaking country. It consists of four (4.0) credits and is intended for undergraduate students and persons already holding degrees in any discipline.

Admission

Admission to the certificate program requires a formal application for admission and the official approval of the Co-ordinator for Spanish. Application forms are available from the Registrar. Students majoring in Spanish at Saint Mary's University are not eligible for this program. Three (3.0) of the four (4.0) credits must be completed at Saint Mary's.

Program Courses

The program consists of two (2.0) required credits in language, SPA 100.0 and/or 204.1(.2), 205.1(.2), 206.1(.2) 230.1(.2), 231.1(.2), 303.1(.2) 306.1(.2) and/or and a number of optional credits. These optional credits must be at the 300 level or above and will be chosen from the following courses:

SPA 304.1(.2) Americas: The Changing Face of Latin America
 SPA 305.1(.2) Contemporary Spanish Society
 SPA 310.1(.2) Latin American Culture
 SPA 402.0 Contemporary Latin-American Literature
 SPA 405.0 20th-Century Spanish Literature
 HIS 375.0 Modern Latin America
 HIS 402.1(2) Aspects of Global History

Other courses are possible, subject to the approval of the Co-ordinator for Spanish.

Requirements for Graduation

A minimum cumulative quality point average of 2.00 in this certificate program is required. Students who have completed all the courses without being officially admitted to the program will not be accredited.

The Minor in Linguistics and the Certificate in Linguistics

These are described in Section 5 of this *Academic Calendar*.

Classics - Ancient History (CLA)

303.0 History of Greece

[HIS 350.0]

Prerequisite: 1.0 credit in Classics or History or the permission of instructor.

An intensive study of ancient Greek history from the time of the early Minoan and Mycenaean societies to the end of the classical polis about 400 B.C. Students will learn something of Greek religion, social history,

and government, and in particular study the development of Athenian democracy. This course may also be used as a History credit.

304.0 History of Rome

[HIS 351.0]

Prerequisite: 1.0 credit 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.

307.0 Ancient Rome in Film, Fiction, Fact

[HIS 357.0]

Prerequisite: one (1.0) credit in Classics.

Study of Ancient Rome from the fall of the Republic through the first century of the Empire (including such figures as Julius Caesar, Augustus, Caligula, Nero) as portrayed in fiction and film; comparison of popular views of Rome with hypotheses and facts based on historical and archaeological information.

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.

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).

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.

Classics - Classical Literature and Civilization (CLA)

*200.0 The Classical Civilizations of Greece and Rome

A general introduction to the civilizations of ancient Near East, Greece and Rome with particular regard to history, political organization and cultural contributions.

*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.

***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 labours of Hercules, the wanderings of Aeneas.

306.0 The Epic*[EGL 306.0]**

Prerequisite: one (1.0) credit in English or one (1.0) credit in Classics.

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.

***311.1.(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.

***312.1.(2) Art of the Hellenistic World and of Rome**

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 the Hellenistic World and Rome.

313.1.(2) Art in Late Antiquity and Europe to the 14th Century*[REL 372.1.(2)]**

Christian art borrowed themes and motifs from the pagan past and created new, particularly Christian subjects. This course will study catacomb paintings, Byzantine icons, art in the Carolingian Renaissance, the art of Vikings and conclude with a study of the magnificent Romanesque and Gothic cathedrals.

352.1.(2) Women in Antiquity I**[REL 306.1.(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.

353.1.(2) Women in Antiquity II**[REL 307.1.(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.

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.

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.

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.

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.

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.

Classics - Greek (GRE)**100.0 Introductory Ancient Greek**

An introductory course covering the major grammatical points of the ancient Greek language. This course will be followed in succeeding years by more advanced courses in the reading and interpretation of classical authors.

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

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. Since Latin is an inflected language with many changes in endings, students should be prepared to work hard at understanding and learning its basic structures.

201.0 Intermediate Latin

Prerequisite: LAT 100.0 or equivalent.

This course aims to enhance the development of good techniques of 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.

Modern Languages - Arabic (ARA)

100.0 Introduction to Arabic

An introductory language course for those beginning the study of Arabic language and culture. This course is designed to offer an initial competency in Arabic, and is not offered to those with an Arabic-speaking background.

200.0 Intermediate Arabic

Prerequisite: ARA 100.0.

This course is intended as a continuation of Arabic 100 for non-Arabic speaking students. It is designed to offer better competency in speaking, reading, and writing Arabic.

307.1(.2) Arabic Language Skills I

Prerequisite: ARA 200.0.

This course aims to develop additional proficiency in Arabic in speaking, reading and writing. This course has a strong grammar component and is intended for Arabic-speaking students or those with a developed level of ability beyond that of Arabic 200.0

308.1(.2) Arabic Language Skills II

Prerequisite: ARA 307.1(.2).

This course continues the work begun in ARA 307.1(.2) and aims to further develop the student's proficiency in Arabic.

Modern Languages - Chinese (CHI)

100.0 Introductory Modern Chinese

An introduction to spoken and written modern Chinese (Mandarin). Conversational drill and comprehension exercises in the classroom and laboratory provide practice in pronunciation and in the use of the basic patterns of speech. Chinese ideographs are introduced and studied in combinations. Reading progresses from prepared materials to selections from contemporary writings.

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 used, especially in the second semester, to help students acquire the ability to read and write.

300.1(.2) Advanced Oral and Written Chinese I

Prerequisite: CHI 200.0

This course offers an opportunity to build and refine students' ability to comprehend and to communicate effectively in Chinese.

301.1(.2) Advanced Oral and Written Chinese II

Prerequisite: CHI 300.1(.2)

This course is a continuation of CHI 300.1(.2).

Modern Languages - French (FRE)

110.0 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 enrolment in this course.

200.0 Basic University French

Prerequisite: placement test or FRE 110.0 or equivalent with a minimum grade of C.

A student enrolling in this course must have completed 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.

Note: This course cannot be counted for the French major and is not intended for immersion students or students with a francophone background.

230.1(.2) French Communication Skills

Prerequisite: FRE 200.0 or equivalent with a minimum grade of C.

This course builds on language skills acquired in other French courses to enhance the student's ability to communicate in French.

Note: This course cannot be counted for the French major and is not intended for immersion students or students with a francophone background.

231.1(.2) French Reading and Writing Skills

Prerequisite: FRE 200.0 or equivalent with a minimum grade of C.

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.

Note: This course cannot be counted for the French major and is not intended for immersion students or students with a francophone background.

250.0 Intermediate French

Prerequisite: placement test or one (1.0) French course.

Oral and written French, including composition, conversation, and a review of grammar based on contemporary texts. This is an intensive course designed for students with a solid background in French. Taught in French. This is the normal starting point for majors. Students with more developed skills, including Francophones, start at the 300 level.

305.1.(2) Acadian Language and Culture*[LIN 305.1.(2)]**

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.

307.1.(2) Advanced French Language Skills I

Prerequisite: French 250.0 with a minimum grade of C. Students may be required to write a short composition to indicate their level of ability.

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. Knowledge of intermediate level grammar is assumed. Grammatical points will be reviewed as required.

Note: This course is compulsory for all students who intend to major in French.

308.1.(2) Advanced French Language Skills II

Prerequisite: FRE 307.1.(2) with a minimum grade of C or permission of instructor or chairperson.

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. Knowledge of intermediate level grammar is assumed. Grammatical points will be reviewed as required.

Note: This course is compulsory for all students who intend to major in French.

***310.1.(2) Introduction to French Culture**

Prerequisite: FRE 250.0.

This course focuses on contemporary French culture, France's role in the European Union and the country's efforts to reconcile modern developments and ethnic diversity with tradition. Topics covered include history, politics, education, the arts and gastronomy. Films, TV broadcasts, slides, and magazine and newspaper articles will assist students in developing informed perspectives on French culture. This course is of particular interest to current or prospective French teachers.

***312.1.(2) Introduction to Quebec Culture**

Prerequisite: FRE 250.0.

This course informs students about present-day life in Quebec. Topics covered include bilingualism, politics, education, the arts and leisure. Students will gain a deeper understanding of and appreciation for contemporary Quebec culture. This course is of particular interest to current or prospective teachers of French.

320.1.(2) French Phonetics**[LIN 321.1.(2)]**

Prerequisite: FRE 250.0.

A course for students beyond the intermediate level who wish to improve their command of written French by engaging in a variety of writing activities involving the production of different types of texts. Knowledge of intermediate level grammar is assumed

321.1.(2) Writing in French

Prerequisite: FRE 250.0.

A course for students beyond the intermediate level who wish to improve their command of written French by engaging in a variety of writing activities involving the production of different types of texts. Knowledge of intermediate level grammar is assumed

325.1.(2) French Speech Strategies: Managing Conversations

Prerequisite: FRE 250.0.

This conversation course involves practice in developing strategies for use in conversations. By means of application activities, students learn specific language strategies that will help them become effective and persuasive conversationalists. Recommended for students interested in perfecting their communicative skills and strategic competence in spoken French.

331.1.(2) French Review Grammar

Prerequisite: FRE 250.0.

Is your grammar rusty? This intensive review of French grammar covers the basic points and those aspects of language use that are particularly difficult for English speakers. This course is of interest to those wanting to perfect their accuracy, to broaden their knowledge of French structure.

335.1.(2) French for Business

Prerequisite: FRE 250.0 or placement test.

Students will acquire the basic vocabulary and reading skills necessary to understand business correspondence, reports, and articles in French, as well as writing skills to allow written communication in French in a Canadian commercial context.

340.1.(2) Linguistic Study of French**[LIN 341.1.(2)]**

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.

***350.1.(2) Introduction to Literature Written in French, I**

Prerequisite: FRE 250.0.

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 style.

Note: This course is required of all students who intend to major or take honors in French.

***351.1.(2) Introduction to Literature Written in French, II**

Prerequisite: FRE 250.0 with a minimum grade of C or permission of instructor or chairperson.

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.

400.1.(2) French Speech Strategies: Perfecting Oral Skills

Prerequisite: One (1.0) FRE credit at the 300 level.

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. Discussions, debates and oral reports on current events form the central point of this course. 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.

***410.1.(2) La France en Chansons**

Prerequisite: Either FRE 350.1.(2) and 351.1.(2). FRE 310.1.(2) is recommended.

Songs are part of daily life and reflect the evolution of the society in which they are rooted. They also have a genuine poetical value and in this respect, they are timeless. The purpose of this course is two-fold; first, to examine the cultural and historical background behind the works of France's most prestigious songwriters; second, to analyze the literary value of the lyrics. This course is of particular interest to prospective teachers of French.

***412.1.(2) Literature and Society of French Canada**

Prerequisite: FRE 350.1.(2) and 351.1.(2) or FRE 307.1.(2) and 308.2.(1).

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, and art. The course also examines the historical evolution leading to the particular situation of present-day Quebec.

***416.1.(2) The Eighteenth Century**

Prerequisite: FRE 350.1.(2) and 351.1.(2) with a minimum grades of C.

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 350.1.(2) and 351.1.(2) with a minimum grades of C.

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 350.1.(2) and 351.1.(2) with a minimum grades of C.

A study of some of the major novels of the second half of the nineteenth century and the literary movements which gave them form.

422.1.(2) Introduction to Literary Analysis

Prerequisite: FRE 350.1.(2) and 351.1.(2) with a minimum grades of C.

The purpose of this course is to provide an understanding of contemporary francophone literature and thought through exposure to theatre, short stories and filmscripts. 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.

***426.1.(2) The French Short Story**

Prerequisite: FRE 350.1.(2) and 351.1.(2) with a minimum grades of C.

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 350.1.(2) and 351.1.(2) with a minimum grades of C.

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 350.1.(2) and 351.1.(2) with a minimum grades of C.

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").

***433.1.(2) Women's Literature in France**

[WMS 433.1.(2)]

This course will provide an introduction to French women's writing emphasizing the plurality of women's voices. The course contains an historical overview of women's writing in France and an analysis of individual texts based on feminine perspectives.

***434.1.(2) Women's Literature in French Canada**

[WMS 434.1.(2)]

This course will provide an introduction to French Canadian women's writing emphasizing the plurality of women's voices. The course contains an historical overview of women's writing in French Canada and an analysis of individual texts based on feminine perspectives.

435.1.(2) Advanced Grammar I

Prerequisite: FRE 307.1.(2) and 308.1.(2) and 321.1.(2) or 331.1.(2) each with a minimum grade of C, or permission of instructor or chairperson.

A systematic review of the main points of French grammar within the context of a theoretical framework describing the nature and function of different parts of speech and the structure of simple and compound sentences. Strongly recommended for majors.

436.1(2) Advanced Grammar II

Prerequisite: FRE 435.1(.2) with a minimum grade of C or permission of instructor or chairperson.

A systematic review of the main points of French grammar within the context of a theoretical framework describing the nature and function of different parts of speech and the structure of simple and compound sentences. Strongly recommended for majors.

437.1(2) Comparison of English and French Stylistics I

Prerequisite: FRE 307.1(.2) and 308.1(.2).

A course designed to increase the students' 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.

438.1(2) Comparison of English and French Stylistics II

Prerequisite: FRE 437.1(.2).

A course designed to increase the students' 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 of translation.

440.1(2) Canadian French: Sociolinguistic Perspectives [LIN 440.1(.2)]

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.

***451.1(2) Quebecois Literature I**

Prerequisite: FRE 350.1(.2) and 351.1(.2) with a minimum grade of C.

A study of selected major works in Quebec literature from 1935 to 1960 in the context of their socio-cultural background.

***452.1(2) Quebecois Literature II**

Prerequisite: FRE 350.1(.2) and 351.1(.2) with a minimum grade of C.

A study of selected major works in Quebec literature from 1960 to the present in the context of their socio-cultural background.

***460.1(2) 20th Century French Literature**

Prerequisite: FRE 350.1(.2) and 351.1(.2) with minimum grade of C.

A study of the important literary movements in French literature from 1900 to the New Novel of the 1950's.

***461.1(2) Contemporary French Literature**

Prerequisite: FRE 460.1(.2) with a minimum grade of C.

The course focuses on France's major authors from the 1980s to the present. The course explores how the traditional literary genres of theatre, poetry and the novel are often replaced by free-form genres, especially in the works of women writers.

490.1(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.

491.1(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.

500.0 The Honors Essay

French Honors' students are required to submit a substantial essay or complete a research project selected and prepared in conjunction with a faculty advisor.

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.

201.1(2) Intermediate German I

Prerequisite: GER 100.0 (or equivalent) with a minimum grade of C.

A continuation of elementary German, with emphasis on grammar, conversation, and reading.

202.1(2) Intermediate German II

Prerequisite: GER 201.1(.2) with a minimum grade of C.

A continuation of 201.1(.2) with emphasis on conversation, reading, and writing.

***306.1(2) German Culture and Civilization**

Readings, lectures, slide showings, and films on the culture and civilization of Germany. Concentration will be on Germany from 1871 on: politics, history, literature, and art will be investigated. This course is taught in English.

***307.1(2) Introduction to German Literature**

Prerequisite: GER 202.1(.2).

A 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.

***308.1(2) Modern German Literature**

Prerequisite: GER 202.1(.2).

A study of trends in German literature since the First World War. Poetry, plays, and short stories are read and analyzed.

311.1.(2) Advanced Oral and Written German I

Prerequisite: GER 202.1.(2) (or equivalent).

This course offers an opportunity to build upon and refine students' ability to comprehend and to communicate effectively in German. Multimedia materials are used to supplement course materials.

312.1.(2) Advanced Oral and Written German II

Prerequisite: GER 311.1.(2) (or equivalent).

This course is a continuation of German 311.1.(2).

330.1.(2) Introduction to Business German I

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.

331.1.(2) Introduction to Business German II

Prerequisite: GER 330.1.(2).

This is a continuation of the material introduced in GER 330.1.(2).

***401.1.(2) German Literature from 1945**

Prerequisite: GER 202.1.(2).

A study of significant prose and dramatic works in German literature from 1945 to the present.

406.1.(2) – 409.1.(2) Independent Study

Prerequisite: permission of instructor prior to registration.

This course is for 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 - Italian (ITA)**100.0 Introduction to Italian**

A course for students beginning the study of Italian. The basic structures of the language will be studied, with special emphasis on the spoken language.

Modern Languages - Japanese (JPN)**100.0 Introductory Japanese**

An introductory language course for those beginning the study of Japanese language and culture. Classroom activities will provide practice in pronunciation and the use of basic patterns of speech. Written Japanese will be introduced and studied.

200.0 Intermediate Japanese

Prerequisite: JPN 100.0 or equivalent.

A continuation of introductory Japanese, intended to develop proficiency in oral, aural and written Japanese within the context of Japanese culture.

300.1.(2) Advanced Oral and Written Japanese I

Prerequisite: JPN 200.0.

This course offers an opportunity to build and refine students' ability to comprehend and to communicate effectively in Japanese.

301.1.(2) Advanced Oral and Written Japanese II

Prerequisite: JPN 300.0.

This course is a continuation of JPN 300.1.(2).

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.

204.1.(2) Intermediate Spanish I

Prerequisite: SPA 100.0 with a minimum grade of C (or equivalent).

This course is a continuation of elementary Spanish, with emphasis on comprehension, conversation, reading, and writing.

205.1.(2) Intermediate Spanish II

Prerequisite: SPA 204.1.(2) with a minimum grade of C (or equivalent).

This course is a continuation of Intermediate Spanish I, SPA 204.1.(2).

206.1.(2) Intermediate Spanish Communication Skills

Prerequisite: SPA 100.0 with a minimum grade of C. Concurrent enrolment in SPA 204.1.(2) and/or SPA 205.1.(2) is strongly recommended.

This course builds on basic language skills acquired in previous study to enhance the student's ability to communicate in Spanish. Students will practice how to structure and manage conversations at an intermediate level in order to increase their oral proficiency in the language. Thorough advanced preparation is required for each class, where oral activities predominate.

230.1.(2) Spanish for Business I

Prerequisite: SPA 100.0 with a minimum grade of B, or equivalent preparation in Spanish.

Designed to acquaint students with basic Spanish language forms used in business, including the specialized terminology of oral and written commercial communication. The cultural aspects of business negotiations in Spanish-speaking countries, together with the economic and political profiles of various Latin American nations and Spain, will be explored. The course emphasizes the development of conversational proficiency through the use of discussion and experiential exercises, and will also include written assignments.

231.1.(2) Spanish for Business II

Prerequisite: SPA 100.0 with a minimum grade of B.

Designed to assist students in furthering their development of oral and written communication skills for the business world. Students will broaden their working vocabulary of business terminology in Spanish and their knowledge of commercial practices in the Spanish-speaking world. Oral and written assignments will provide an understanding of the economic, social, and political panorama of Spanish-speaking Latin America and Spain.

303.1.(2) Advanced Oral and Written Spanish I

Prerequisite: SPA 204.1(.2) and 205.1(.2) with a minimum grade of B or permission of instructor.

This course is designed to build upon and refine the students' ability to comprehend and to communicate effectively in Spanish.

***304.1.(2) Americas: The Changing Face of Latin America**

Given in English, this course is an introduction to selected aspects of present-day Latin America and the Caribbean through a screening of video material and selected readings. The course focuses on a wide range of issues, and may include economic development, migration, racial identity, the role of women, religion, the work of creative artists, national sovereignty, and revolution. This course contributes to satisfying the Faculty of Arts humanities 3c requirement but does not fulfil the 3b requirement.

***305.1.(2) Contemporary Spanish Society**

Given in English, this course is an introduction to Spanish culture and society. Drawing on video, audio, and print materials, the course explores the reality of modern-day Spain through an examination of topics such as the physical and human geography of Spain; the Spanish encounter of the New World; stereotypes of Spanish Folklore and national character; Spanish contributions to world art and literature; the legacy of Francisco Franco; the changing role of women in national life; religions and religious faith; the transition from rural existence to modern urban life; and the image of Spain today. This course fulfils the Faculty of Arts humanities 3c requirement but does not fulfil the 3b requirement.

306.1.(2) Advanced Oral and Written Spanish II

Prerequisite: SPA 303.1(.2) or permission of instructor.

This course is a continuation of Advanced Oral and Written Spanish I, SPA 303.1(.2).

***310.1.(2) Latin America Culture**

Prerequisite: SPA 204.1(.2) and 205.1(.2) with a minimum grade of C.

This course introduces a broad range of cultural and artistic manifestations of Latin America, both past and present. Topics may include indigenous cultures in the Americas, the importance of European culture to the New World, and the effort to preserve a distinct Latin American culture. The course will be conducted entirely in Spanish.

***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.

***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.

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.

Philosophy (PHI)

Chairperson, Associate Professor	S. Crooks
Associate Professor, Undergraduate Advisor	M. Mercer
Professor, Graduate Officer	S. Wein
Associate Professors	J. MacKinnon, P. March, M. Mercer
Assistant Professors	R. Ansell, C. MacDonald
Professor Emeritii	R. Beis, A. Monahan, W.A. Stewart, S.J.

General Information

Throughout our lives, we are frequently assailed by philosophical perplexity. Are knowledge and morals a matter of preference and perspective, or are there such things as objective truths and values? What indeed is worth valuing? Is there a God? Is the mind separable from the body? What is the nature of meaning? How ought we to organize ourselves in society? How can we balance considerations of liberty with those of equality?

The ultimate aim of a philosophy course is not merely to assist students in understanding the writings of those thinkers who have addressed these important issues, but also to equip students with the means by which they themselves can profitably grapple with the same questions. A student's development within the discipline, therefore, depends not just on a critical and imaginative engagement with the material, but on dialogue with others, both inside and outside of the classroom.

Philosophy furnishes a good grounding for adulthood and citizenship, since it contributes so significantly to the development of inquisitive and independent minds. Given the emphasis in philosophy on argument and analysis, there is perhaps no better preparation for a career in law. And since philosophy places a premium on precision of thought and expression, it provides an excellent background for a career in journalism and publishing, policy-making, education, and counselling. Philosophy graduates also attest to the indispensable value of their education to their careers in research and planning, technical services, management and medicine.

The Department of Philosophy offers a full range of undergraduate courses. Students may obtain an honors degree in philosophy, be a philosophy major, do a minor in philosophy or earn a concentration 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 3b of the Faculty of Arts degree requirements.

1. Major in Philosophy

Students majoring in philosophy must complete at least six (6.0) credits in philosophy. At least four (4.0) of these must be above the 200 level, and of these four, at least two (2.0) credits must be at the 400 level or above.

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 Critical Thinking
- 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 (6.0) credits 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 8-14, Section 3 of this *Calendar*; and (b) complete ten (10.0) credits in philosophy, no more than two (2.0) at the 200 level and a minimum of four (4.0) at or above the 400 level. Typically, an honors graduate will have completed two (2.0) 200-level credits, four (4.0) 300-level credits, and four (4.0) 400-level credits. Eligible students have the option of completing an Honors Thesis (PHI 599.0). 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 (4.0) credits, at least two (2.0) of which must be above the 200 level.

6. Concentration in Philosophy

To obtain a concentration in Philosophy in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits), a minimum of four (4.0) credits in PHI is required; also a minimum cumulative quality point average of 2.00. Further details are available from the chairperson.

7. 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.

8. Prerequisites

Except where otherwise stated, the prerequisite for 300 level courses is at least five (5.0) credits in the University; the prerequisite for 400 level courses is one (1.0) credit in philosophy; and the prerequisite for 500 level courses is two (2.0) credits in philosophy, at least one (1.0) above the 200 level.

200.0 Critical Thinking

An introduction to essential principles of reasoning and critical thinking, designed to introduce students to the analysis of concepts, to enhance their ability to evaluate various forms of reasoning and to examine critically beliefs, conventions and theories, and to develop sound arguments. Emphasis will be given to decision-making and arguments in ordinary language, particularly those addressed to issues of public concern and moral debate.

201.0 Introduction to Philosophy

Philosophy is devoted to the critical and creative examination of such fundamental questions as: What can be known? Does existence have meaning? What is a worthwhile life? What moral obligations do people have to one another? What makes a society just? Philosophy provides systematic training in the framing of these questions and in the rigorous analysis of the issues they involve.

222.0 Ethics for Modern Life

The course examines competing moral perspectives on topics such as capital punishment, suicide, euthanasia, abortion, genetic engineering, friendship, marriage, parenthood, discrimination, inequality, poverty, foreign aid, and the environment. The aim is to help the student to develop a coherent set of principles to deal with these and other topics.

244.1.(2) Human Freedom

The traditional problems of free will and political freedom and different concepts and conceptions of freedom and liberation are considered. In addition, there will be 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.

301.1.(2) Introduction to Symbolic Logic

This course introduces the fundamentals of symbolic logic. Both the propositional and predicate calculus are covered as well as various standard proof techniques.

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?

305.1.(2) Environmental Ethics

The nature of the ecological crisis will be examined. Philosophical responses to it will be presented which will involve analysis of the concepts of animal rights, of the intrinsic value of nature, and of obligations to future generations. A portion of the course will be spent on the application of the theoretical concepts to specific ecological issues including population and world hunger, pollution, and the sustainable society. Part of the objective of the applied section will be to raise issues of public policy within a philosophical framework.

311.1.(2) [611.1.(2)] Political Philosophy: The Classic Texts

A critical examination of some of the core works in the history of political philosophy, such as those of Plato, Aristotle, Augustine, Hobbes, Locke, Mill, Rousseau, Hegel, Marx, and Nietzsche.

312.1.(2) [612.1.(2)] Contemporary Political Philosophy

This course introduces students to the major schools of contemporary political thought, such as utilitarianism, liberal egalitarianism, libertarianism, Marxism, communitarianism, and feminism. Among the issues addressed are the justification for state power, the role of human nature in determining political arrangements, democracy and the rights of minorities, the tension between liberty and equality, and the just distribution of resources.

317.1.(2) Philosophy of Economics**325.1.(2) Ethical Issues in International Development****[IDS 325.1.(2)]**

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.

327.1.(2) [627.1.(2)] Philosophy of Mind: The Classic Texts

A close study of the philosophies of mind in the work of philosophers such as Plato and Descartes. Students read the original works and then move to modern critiques of these problems.

328.1.(2) [628.1.(2)] Philosophy of Mind: Contemporary Issues

This course is a study of contemporary theories in the philosophy of mind. Topics include Behaviorism, Mind/Brain Identity theories, Functionalism, Cognitivism, and various theories of consciousness.

330.1.(2) Philosophy of Religion

A philosophical examination of the nature and rationality of religious belief.

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

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

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 Greek philosophy before the time of Socrates followed by careful readings of selected dialogues by Plato.

346.1.(2) [646.1.(2)] Greek Philosophy: Aristotle and The Hellenists

Prerequisite: PHI 345.1.(2).

A study of Aristotle's views (focusing on topics in metaphysics, psychology, knowledge and ethics), together with a brief examination of several Hellenistic philosophers.

348.1.(2) [648.1.(2)] Aesthetics: The Classical Tradition

This course addresses issues central to the history of philosophical aesthetics, including those of representation, expression, and the cognitive aspects of art and aesthetic experience. The course will involve a survey of some of the great works of the tradition, including those of Plato, Aristotle, Kant, Collingwood, Dewey, and others.

349.1.(2) [649.1.(2)] Aesthetics: Contemporary Debates

This course addresses issues that dominate contemporary philosophical reflection on the arts, including those of form and content, the logic of taste, aesthetic value, art and knowledge, art and emotion, and so on.

358.1.(2) Philosophy of Human Nature

Is there such a thing as a fixed and essential human nature? If so, what is it? What are we like as beings in the universe, on earth, in history? This course will consider a range of classical and contemporary responses to these questions. Included among the views that will be addressed are those of Aristotle, Hobbes, Rousseau, Darwin, Marx, and Freud, as well as existentialist, behaviorist, and feminist accounts.

359.0 Cross-listed as EDU 301.0 Philosophy of Education**362.1.(2) Philosophy and Literature**

This course involves critically assessing the philosophical implications of selected literary works. It should interest students who are curious about the philosophical significance of literature. Works that may be discussed include: Shakespeare's King Lear, Marlowe's Dr. Faustus, Melville's Billy Budd, Conrad's Lord Jim, Walker Percy's The Moviegoer, Tom Stoppard's Jumpers and Richard Ford's The Sportswriter. The course may also address philosophical questions about literature. For instance, what cognitive and moral values are associated with our reading of literature?

How do we explain our emotional reactions to fictional works? Why do we enjoy the experiences elicited by literary tragedy and horror?

368.1(.2) [668.1(.2)] 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 before 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]

The course will examine the nature of the contemporary movement of feminism, and examine and evaluate arguments for and against this 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.

400.0 Metaphysics

Metaphysics seeks to determine whether we can know any general truths about the world. What is it to exist? What is it to be an individual? What are the fundamental kinds of things and relations? Consideration is given to the principal metaphysical theories that form part of the Western philosophical tradition, e.g., materialism, idealism, dualism and monism. The course will also consider the major problems and concepts of metaphysics, e.g., time, space, substance, essence, free will, determinism, and causality.

402.1(.2) [602.1(.2)] Philosophy of Language

Prerequisite: one (1.0) philosophy credit at the 300 level.

How is it that words and sentences mean what they do? One answer to this question is that linguistic meaning is determined by the speaker's intentions; another is that it is determined by social practices. Each answer raises issues regarding the relation of language to both thought and reality that this course will aim to address.

403.1(.2) [603.1(.2)] Philosophy of Language: Speech Acts

404.1(.2) [604.1(.2)] Theory of Knowledge

This course examines the various concepts of human knowledge and attempts to find the limits of that knowledge. Traditional approaches to problems in the theory of knowledge will be considered as well as current work.

405.1(.2) [605.1(.2)] Theory of Knowledge: Ethics of Belief

We commonly evaluate beliefs as rational or irrational; justified or unjustified; responsible or irresponsible. But what do these terms mean and when are they correctly applied? Can beliefs be ethical? These and related questions are debated by contemporary epistemologists. This course seeks to interpret and assess the main competing views.

407.1(.2) [607.1(.2)] Philosophy of Perception

413.1(.2) Intermediate Logic

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.

415.1(.2) Argumentation Theory

Contemporary argumentation theory draws upon several disciplines: philosophy of language, cognitive psychology, feminist philosophy and communications theory. This course will examine the concept of argument through the lens provided by argumentation theorists. Alternative conceptions of argument will be critically examined and an overview of the development of argumentation theory will be provided.

440.1(.2) [640.1(.2)] Medieval Philosophy: Early Period to 12th Century

441.1(.2) [641.1(.2)] Medieval Philosophy: 13th, 14th Centuries

442.1(.2) [642.1(.2)] Early Modern Philosophy: The Rationalists

A critical examination of the works from this movement, focusing on the areas of metaphysics and epistemology. Descartes, Malebranche, Spinoza and Leibniz are among the philosophers typically studied.

443.1(.2) [643.1(.2)] Early Modern Philosophy: The Empiricists

A critical examination of the works from this movement, focusing on the areas of metaphysics and epistemology. Hobbes, Locke, Berkeley and Hume are among the philosophers typically studied.

444.1(.2) [644.1(.2)] Later Modern Philosophy: Kant

A lecture and seminar course on Kant's theory of knowledge.

447.1(.2) [647.1(.2)] Later Modern Philosophy: The German Idealists

448.1(.2) [652.1(.2)] Philosophy of Science

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.

450.0 (650.0) Phenomenology

454.1(.2) [654.1(.2)] Philosophy of History

455.1(.2) [655.1(.2)] Existentialism: The 19th Century

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.

456.1(.2) [656.1(.2)] Existentialism: The 20th Century

A lecture and seminar course examining the 20th century expression of the existentialist movement in contemporary philosophy, through close study of the writings of Heidegger, Sartre, Camus, and others.

471.1(.2) [671.1(.2)] Meta-ethics

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

The course will involve the study of the nature of moral judgements and the logic of moral reasoning.

479.0 (679.0) Senior Seminar

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**

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) 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.

525.1(2) [625.1(2)] International Justice**[IDS 525.1(2)/625.1(2)]**

This course will consider how major theories of justice such as Kantian constructivism, economic contractarianism, and utilitarianism deal with important issues in international justice such as the law of peoples, distributive justice, human rights, and democratization.

565.0 (665.0) Analytic Philosophy

A lecture and seminar course that examines the origins, expressions, and significance of the contemporary analytic movement in philosophy.

599.0 Honors Thesis

Honors students have the option of completing a thesis on an approved topic. The permission of the Chairperson of the Department and the availability of a thesis supervisor are required.

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.



Football Huskies, The Larry Uteck Bowl Champions and finalists at the Vanier Cup 2003.



Hockey Huskies defenseman, Laurie Reindorf, Assistant Team Captain.

Political Science (POL)

Chairperson, Assistant Professor	L. Preyra
Professor	R. Landes
Associate Professors	A. Dobrowolsky, E. Keeble, D. Naulls
Assistant Professors	M. Doucet, S. Gaon
Professor Emeritus	E. McBride

Departmental Policy for Majors

Students who intend to complete a major concentration in political science must take a minimum of seven (7.0) credits in political science, including a maximum of one (1.0) credit at the 200-level. The department recommends (but does not require) that a student take POL 304.0; 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 conduct original research. Students interested in pursuing postgraduate degrees are particularly encouraged to apply.

Admission Requirements

Students should officially apply for admission to the Honors program not later than December of Year 3. 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 an Honors advisor and approve the major area of concentration.

In order to be considered for admission to the political science Honors program, a student must normally have a cumulative quality point average of at least 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 Continuance 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 (12.0) credits 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 (4.0) of these credits 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 complete at least one (1.0) credit in each of these four subfields. Honors students are required to declare one of these subfields as their major area of study.

In addition, it is strongly recommended that Honors students complete POL 401.0 (Scope and Methods).

Honors students must receive credit for at least one (1.0) political science seminar course at the 500 level, in addition to POL 500.0 (Honors Essay Course).

Honors students must submit an honors essay (10,000 words) in their major area of concentration by March 15 of their Honors year. The Honors Advisor and Department must approve the Honors Essay before a degree is recommended.

An Honors student is encouraged to register for five (5.0) credits in the honors year.

Departmental Policy for Minors

Students who intend to take a minor in political science must complete at least four (4.0) credits in political science, including a maximum of one (1.0) credit at the 200-level. The Department recommends (but does not require) that a student take POL 304.0. Additional requirements are found in the Faculty of Arts regulation 8 in Section 3 of this *Calendar*.

Note: Students may only count one (1.0) credit at the 200-level for their major or minor requirements.

Departmental Policy for Concentration

To obtain a concentration in Political Science in partial fulfillment of the B.A. General degree [i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits], a minimum of four (4.0) credits in POL is required; also a minimum cumulative quality point average of 2.00. Further details are available from the chairperson/co-ordinator.

200.0 Introduction to Political Science

This course introduces students to various dimensions of political science. It reviews classic political concepts, theories and debates as well as examines new political challenges. Students will develop a broad and general understanding of governance, political parties, international relations and political philosophies. Students will also engage in contemporary debates on political issues and explore comparative as well as international/global concerns.

210.1(2) Political Ideologies

An introduction to political ideologies (including liberalism, conservatism, socialism, fascism, feminism, anti-racism) and their role in shaping modern political life. Particular attention will be given to the meaning of "ideology" in general and its place in contemporary politics, as well as to the emergence of new ideologies and their relationship to social, economic and cultural forces.

220.1(2) Political Analysis

An introduction to the theoretical approaches and techniques used in understanding political events and claims. Particular attention will be given to critical and institutional perspectives, as well as to debates over various approaches to political analysis and to the question of the interpretation of political issues and conflicts.

230.1(2) Law and Politics

An examination of the practical and theoretical connections between law and politics. The course will concentrate on contemporary public law issues and constitutional reform in liberal-democracies.

240.1(2) Politics and Business

An introduction to the relationship between politics and business. This course is based on developing an understanding of the dynamics of business-government relations, with special emphasis on Canada from a comparative perspective. Special attention is given to business organization and lobbying, government regulation, and selected public policy issues and agencies.

302.0 Democratic Government

Prerequisite: one (1.0) credit at the 200-level or permission of instructor.

An examination of fundamental concepts in democratic theory. Special emphasis is placed on the relationship between theory and practice. Selected countries are comparatively studied to identify and explain similarities and differences in the practice of democratic politics.

304.0 Canadian Politics in the 21st Century

Prerequisite: one (1.0) POL credit at the 200-level.

This course introduces students to the institutions; ideas and identities which structure and shape Canadian governance in the 21st century. Political features and forces are outlined, grounded historically and considered in light of current developments. Shifting political as well as economic, social and cultural climates are examined. Throughout, fundamental representational and democratic challenges are evaluated.

305.0 International Relations

Prerequisite: one (1.0) POL credit at the 200-level.

This course is an introduction to the study of world politics. It will explore the traditional and alternative schools of thought in the field of international relations in order to provide students with the analytical tools necessary to gain a better understanding of a world in transformation.

306.1(2) Comparative European Politics

Prerequisite: one (1.0) POL credit at the 200-level.

A study of the institutions and politics of some of the major national political systems of Europe.

307.0 Provincial Government and Politics

Prerequisite: one (1.0) POL credit at the 200-level.

An analysis of the dynamics and structure of provincial government in Canada, with special reference to Nova Scotia. Provincial political parties, voting behavior, legislatures, bureaucracies and policy formulation constitute the core of this course. Inter-provincial and federal-provincial relations are examined, with particular reference to Maritime Union, Quebec, and the Western provinces.

310.0 Government and the Media

Prerequisite: one (1.0) POL credit at the 200-level.

An examination of the influence of the media, and the impact 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 issues raised by new technology.

312.0 Government and Politics in the United States

Prerequisite: one (1.0) POL credit at the 200-level.

An analysis of the American political system, its political culture, social base, constitutional order, governmental structure and policymaking processes. Special emphasis is placed on the party system, voting behavior, and the Presidency.

314.1(2) Politics of the Developing Areas

Prerequisite: one (1.0) POL credit at the 200-level.

An examination of political development in selected states in Asia, Africa, Latin America, or the Middle East.

315.0 Canadian Foreign Policy

Prerequisite: one (1.0) POL credit at the 200-level.

This course is an introduction to the study of Canadian foreign policy. Straddling the subfields of Canadian politics and international relations, this course provides students with tools to analyze Canada's role in the global and globalizing context.

316.1(2) Politics in the European Union

Prerequisite: one (1.0) POL credit at the 200-level.

A study of the institutions and policy-making processes of the European Union.

317.0 Charter Politics and Constitutional Change

Prerequisite: one (1.0) POL credit at the 200-level.

A comparative examination of selected sources and authorities respecting fundamental law in democratic countries. The course will provide students of constitutional law with a theoretical basis for the analysis of constitutions and relevant judicial decisions.

319.1(2) Local and Urban Government and Politics

Prerequisite: one (1.0) POL credit at the 200-level.

Using historical, comparative, and structural approaches, analysis in the first semester is concerned largely with municipal government - especially its development in Canada, intergovernmental relations, the concept of autonomy, and structures of decision-making.

321.1(2) International Organization

Prerequisite: one (1.0) POL credit at the 200-level.

This course examines the concept of international organization. It will focus on the tensions between emerging forms of global governance and existing structures of inter-governmentalism. The course explores current trends and debates within organizations such as the United Nations (UN) and may examine areas such as peace and security, human rights, gender, economic development, environmental protection, and civil society.

322.1(2) Global Political Economy

Prerequisite: one (1.0) POL credit at the 200-level.

This course explores the theory and practice underlying the political forces structuring the global economy. Particular attention will be paid to interactions between the global economy and international organizations such as the World Trade Organization (WTO), the World Bank, and the International Monetary Fund (IMF).

327.0 Government and Politics in the Middle East

Prerequisite: one (1.0) POL credit at the 200-level.

A comparative study of the governments and politics of selected Middle Eastern countries, with an emphasis on the analysis of the fundamental political and socio-economic changes that are occurring in the area and attempting to shape its modernizing pace.

330.0 Introduction to Public Administration

Prerequisite: one (1.0) POL credit at the 200-level.

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.

335.0 History of Political Thought

Prerequisite: one (1.0) POL credit at the 200-level.

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.

348.0 Comparative Political Behaviour

Prerequisite: one (1.0) POL credit at the 200-level.

From a comparative perspective, a study of the nature of voting and electoral behavior in Canada, the United States, Britain or selected other countries.

401.0 Scope and Methods of Political Science

Prerequisite: one (1.0) POL credit at the 200-level.

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.

402.1(2) Model United Nations

Prerequisite: POL 321.1(2).

The objective of this course is to foster a greater understanding of the United Nations (UN) and its role within world politics. The course will revolve around the possible participation in a Model UN Conference either within Canada or abroad. Students will be given an opportunity to gain in-depth knowledge of the UN's activities and procedures. Students will be required to engage in activities outside of the classroom. The pedagogical base of this course is experiential learning.

Seminar 2.5 hrs. a week. 1 semester.

418.0 International Law

Prerequisite: one (1.0) POL credit at the 200-level.

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.

419.0 Comparative Constitutional Law

Prerequisite: one (1.0) POL credit at the 200-level.

A comparative analysis of constitutional systems, this course focuses upon the theory and exercise of judicial review, in the context of either Canadian, American, European, or other constitutions. It combines lectures, readings, and the case method.

425.0 Spying and International Politics

Prerequisite: one (1.0) POL credit at the 200-level.

An analysis of the development, role, techniques, and impact of spying on the conduct of international relations.

440.0 Canadian-American Relations

Prerequisite: one (1.0) POL credit at the 200-level.

This course focuses on Canadian-American relations since 1945. The course examines different theoretical approaches to the relationship, as well as a variety of case studies to analyze the nature and extent of Canada-U.S. relations both in the bilateral context and in the multilateral context.

445.0 Introduction to Public Policy

Prerequisite: one (1.0) POL credit at the 200-level.

A critical analysis of public policy formation, the content of public policies, and their impact upon society.

446.0 Political Parties and Democratic Change

Prerequisite: one (1.0) POL credit at the 200-level.

This course compares the historical evolution, as well as the contemporary promises and pitfalls of political parties. The party ideal is appraised in relation to changing political and representational realities. Given growing public dissatisfaction with political parties as democratic vehicles, representational alternatives, and electoral reforms are also contemplated. Here the challenges of other political forms, such as social movements, are examined. Students are encouraged to critically evaluate, compare and contrast political parties on all of these bases.

447.1(2) Canadian Political Parties

Prerequisite: one (1.0) POL credit at the 200-level.

The purpose of this course is to identify and explain continuity or change in Canadian political party beliefs and behavior. 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.

449.1(2) Women and Public Policy

Prerequisite: one (1.0) POL credit at the 200-level.

This course examines a number of contemporary debates and dilemmas in relation to women and public policy. The aim is to gain a better appreciation of the complexity of women's approaches to, and experiences of, various policy areas. The course begins by unpacking the nature and effects of the state and different theories of the state and then moves to explore a range of economic, social, political and legal policy concerns.

450.1 (2) Women and Canadian Politics

Prerequisite: one (1.0) POL credit at the 200-level.

This course explores various dimensions of women's participation in Canadian politics. Politics is broadly conceived and includes women's activism in and outside traditional political institutions: not only in the state, legislatures and political parties, but also in civil society (e.g., with the politics of the women's movement), and in the family. In addition, the course addresses contemporary feminist political debates and challenges. Throughout, women's multiple identities and the multi-faceted nature of women's experiences with politics are emphasized. While the primary focus is on Canadian women, other country studies may also be examined.

451.1(2) [WMS 451.1(2)] Gender and International Relations

Prerequisite: one (1.0) POL credit at the 200-level.

This course explores theoretical and empirical issues raised by a "gender-based analysis" of international relations.

454.1(2) Issues in Canadian Defence

Prerequisite: one (1.0) POL credit at the 200-level.

This course examines Canadian defence policy and arms procurement strategies. Particular emphasis will be placed on political, economic, and technological challenges to contemporary Canadian defence policy-making.

456.1(2) Issues in International Security

Prerequisite: one (1.0) POL credit at the 200-level.

This course examines issues such as international conflict, transnational crime, environmental change and terrorism, taking such perspectives as national security, common security, cooperative security and human security.

457.0 Politics and Government in Ireland

[IRS 457.0]

Prerequisite: one (1.0) POL credit at the 200-level.

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.

460.1(2) Classical Political Thought

Prerequisite: one (1.0) POL credit at the 200-level.

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.

461.1(2) Political Thought of the Renaissance and Reformation

Prerequisite: one (1.0) POL credit at the 200-level.

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.

462.1(2) Early Modern Political Thought

Prerequisite: one (1.0) POL credit at the 200-level.

An examination of the political ideas of the seventeenth and eighteenth centuries. Hobbes, Locke, Montesquieu, Rousseau, Burke and Hume will be studied.

463.1(2) Modern Political Thought

Prerequisite: one (1.0) POL credit at the 200-level.

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.

465.0 Theories of the State

Prerequisite: one (1.0) POL credit at the 200-level.

An examination of contemporary theories concerning the nature and role of the state and society.

470.0 Empirical Democratic Theory

Prerequisite: one (1.0) POL credit at the 200-level.

An examination of the findings and impact 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.

490.0 Directed Reading in Political Science

Prerequisite: permission of Department.

This course, with the department's approval, 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 individual students and faculty members.

491.1(2) - 492.1(2); 495.1(2) - 499.1(2) Selected Topics in Political Science

Prerequisite: one (1.0) POL credit at the 200-level.

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.

493.1(2) Global Social Movements

Prerequisite: one (1.0) POL credit at the 200-level.

This course examines global social movements as new political forces within world politics. It will explore the main theoretical perspectives in the field of international relations that have addressed the political significance of global social movements. The course will also examine the forms of interaction between the constituents of global social movements (e.g. non-governmental organizations NGO's) and the institutions of global governance.

494.1(2) UK Politics in Transition

Prerequisite: one (1.0) POL credit at the 200-level.

This course explores current debates in the United Kingdom (England, Scotland, Wales, and Northern Ireland). It evaluates the contemporary status of longstanding political structures, processes and discourses in the UK. It questions whether traditional state forms (centralized, unitary and welfarist); institutions (the British parliament, political parties, and the constitution); ideas (left/right); and identities (class) are being challenged and changed. It also examines "new politics" initiatives in the Scottish Parliament, as well as the Welsh and Northern Ireland Assemblies.

500.0 Honors Reading Course

Prerequisite: open to honors students in political science.

Through regular meetings with their Honors Supervisor, students will use this course to prepare an honors essay in their major area of study.

550.0 History of Political Thought Seminar

Prerequisite: permission of instructor.

An intensive study of major trends in political thought, ancient and modern, with special attention to contemporary political doctrines and ideologies, their transformation and interrelation in the course of history and their interrelation with social and political conditions.

551.0 Canadian Government Seminar

Prerequisite: permission of instructor.

An analysis of selected aspects of Canadian politics and government. Topics studied may include: political culture, interest groups, political parties, voting behavior, Parliamentarians, and bureaucracy. This seminar emphasizes student presentations and group discussions.

552.0 Comparative Government Seminar

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.

553.0 International Studies Seminar

Prerequisite: permission of instructor.

A seminar on the global interaction of particular international actors and institutions, with special consideration of contemporary transnational issues, trends and developments.

554.0 Political Behavior Seminar

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.

555.0 Public Law Seminar

Prerequisite: permission of instructor.

An advanced study of public law. This seminar will involve students in an examination of various aspects of public law, with special emphasis on the role of judges in the process of law development.



Huskie Stadium with the residence complex and The Tower in the background.

Psychology (PSY)

Chairperson, Professor	V. Catano
Professors	J. Darley, K. Hill, K. Kelloway, R. Konopasky
Associate Professors	A. Day, P. Street, B. Vulcano
Assistant Professors	J. Cameron, M. Fleming, L. Francis, D. Gilin, C. Holmvall, S. Smith, V. Stinson
Adjunct Professors	L. Methot, S. Newsome
Professor Emeritus	J. Chadwick-Jones
Lecturer	M. Fisher

The Psychology Department offers a broad range of courses and programs designed to meet the needs of students from a variety of backgrounds and with varying degrees of interest in psychology. The Department offers an area of concentration for the general Bachelor of Science degree, a major and honors for both the Bachelor of Arts and Bachelor of Science degrees, and a program of study leading to the Master of Science degree in applied psychology.

The Undergraduate Program in Psychology

The psychology undergraduate curriculum consists mainly of semester courses worth one half (0.5) credits which are grouped into three broad categories—Group A, Group B, and Group C. Courses in Group A are representative of psychology as a natural science and offer instruction in the areas of (1) brain and behavior, (2) biology, evolution, and behavior, and (3) cognition. Courses in Group B are representative of psychology as a social science and provide instruction in the areas of (1) development, (2) social behavior, and (3) personality and psychopathology. Courses in Group C are representative of psychology in general and include PSY 200.1(.2), and statistics and research methods courses, among others.

Psychology at the 200 Level

Students who wish to major in psychology should begin by selecting foundation courses from PSY 210.1(.2), 220.1(.2), 230.1(.2), 235.1(.2), 240.1(.2), 250.1(.2), and 260.1(.2). Although recommended for majors, these 200-level courses are open to other students and count towards Faculty of Arts' regulation 3d. Students may take as many of these courses as they wish; however, they should be guided in their selection by the stated prerequisites for 300-level courses. Additionally, students in the Faculty of Arts should be mindful of the need to complete at least eight (8.0) credits at the 300 level or higher.

PSY 200.1(.2) is NOT a prerequisite for other 200-level psychology courses and is not intended for those who plan to major in psychology. PSY 200.1(.2) should be taken only by those students who are choosing psychology as an elective subject. However, Arts and Science students who have taken PSY 200.1(.2) and who then wish to major in psychology or to take other 200-level courses may do so without losing credit for PSY 200.1(.2).

Psychology as an Elective Subject

Students who wish to take psychology as an elective should begin with PSY 200.1(.2), Introduction to Psychology, which is a broad survey of the discipline. Completion of PSY 200.1(.2) will permit enrolment in selected psychology courses at the 300 level. 400-level psychology courses are normally available only to those planning an area of concentration or a major in the discipline. Students who meet the prerequisites of a 400-level course or who obtain permission of the instructor, however, may register for the course. Arts students seeking to fulfil degree requirement 3d or who wish to minor in psychology, Science students seeking to fulfil degree requirement 3e, 6e, or 7b, or who wish to minor in psychology; and Commerce students seeking to fulfil degree

requirement 5c should contact the Department Chairperson for guidance in selecting courses relevant to their needs.

Psychology as a Minor Program

Students who wish to minor in psychology, from whichever faculty, must complete the following requirements: (a) at least one (1.0) credit from courses in Group A and at least one (1.0) credit from courses in Group B; (b) at least two (2.0) credits at the 300 level or higher; and (c) an additional number of credits in Psychology to meet at least the minimum required by the students' faculty regulations. For students in the Bachelor of Arts and Commerce degree programs, the minimum number of credits required is four (4.0); in the Bachelor of Science degree program, five (5.0).

Psychology as an Area of Concentration

Bachelor of Science degree

Students taking a general Bachelor of Science degree may elect an area of concentration in psychology. The requirements are: (1) five (5.0) but not more than seven (7.0) credits in psychology; (2) at least one (1.0) credit from courses in Group A and one (1.0) credit from courses in Group B; (3) completion of PSY 340.1(.2) and 350.1(.2); and (4) at least one-half (0.5) credits from 400-level psychology courses. For students seeking a concentration in psychology, PSY 350.1(.2) is a prerequisite for all 400-level psychology courses. Students seeking a concentration in psychology are required to complete PSY 340.1(.2) and PSY 350.1(.2).

Bachelor of Arts Degree

Students taking a general Bachelor of Arts degree may elect an area of concentration in psychology. In addition to meeting the requirements for a Minor program specified above, students must complete at least one-half-credit (0.5) at the 400-level, PSY 340.1(.2) and PSY 350.1(.2).

Students taking a general Bachelor of Arts degree may elect an area of concentration in psychology. The regulation for this concentration in partial fulfillment of the B.A. degree with Double Arts concentrations and a minimum of fifteen (15.0) credits is a minimum of four (4.0) credits in PSY; also a minimum cumulative quality point average of 2.00. Further details are available from the chairperson.

Psychology as a Major Program

Psychology is both a natural and a social science. Thus students may major in psychology and obtain a Bachelor of Science or a Bachelor of Arts degree. The course requirements for a psychology major are the same for both faculties: (1) a minimum of seven (7.0) but not more than eight and one half (8.5) credits in psychology; (2) at least two (2.0) credits from courses in Group A and two (2.0) credits from courses in Group B; (3) completion of PSY 340.1(.2) and PSY 350.1(.2); and (4) at least three (3.0) credits from 400-level psychology courses. For students majoring in psychology, PSY 350.1(.2) is a prerequisite for all 400-level psychology courses. Students who are taking Psychology as a major must maintain a minimum cumulative quality point average of 2.00 (an average grade of C) in the courses used to meet the minimum credit requirements for the major (Arts Regulation 7, Science Regulation 9). Students seeking a double major in psychology and another subject must meet the requirements for a major in psychology as stated above. Students who intend to declare a major in psychology are advised to consult the Psychology Chairperson as to whether the Bachelor of Science or the Bachelor of Arts is better suited to their career goals. [**Note:** Students who have successfully completed MAT 207.1 (.2) may use that course to satisfy the PSY 340.1(.2) requirement.]

Psychology as an Honors Program

The Psychology Department offers honors study leading to a Bachelor of Arts (Honors) degree, a Bachelor of Science (Honors) degree, and a Certificate of Honors Standing (Honors Equivalency)—academic regulation 26. The honors program is intended for students of above average ability who wish to proceed to graduate work in psychology or related fields or who intend to pursue careers in psychology. For admission to honors in psychology, students at the time of application must have a minimum cumulative quality point average of 3.00 and must have completed at least 3.0 credits in psychology, including PSY 350.1(.2). 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. The Department reviews applications for admission to honors as they are received. Applications from students who do not meet the minimum standards as outlined above at the time of application will not be processed.

The requirements for honors in psychology follow the general regulations for the Faculties of Arts and Science as stated in the *Calendar*. The course requirements are as follows: a minimum of 10.0 credits in psychology, including at least 2.0 credits from courses in Group A and 2.0 credits from courses in Group B. Of the minimum 10.0 credits, at least 6.0 must be at the 400 level or above, including PSY 401.1(.2) Advanced Statistics; 421.1(.2) History of Psychology; and PSY 500.1(.2) Honors Seminar. Honors students who wish to enrol in PSY 549.0, Honors Thesis, must first secure the consent of a member of the Department to supervise their work and then complete an Application for Directed Study form, available from the Registrar's Office. To determine a program of study that is appropriate to their future plans, honors students should consult with the Chairperson of the Department.

Co-operative Education in Psychology

The co-operative education program in psychology allows eligible students to complement their academic studies with experience in relevant work environments. The program involves the completion of a minimum of four terms of approved work experience, and generally takes one year longer to complete than the corresponding traditional degree. A "Co-operative Education" notation is added to the academic transcripts of students who successfully complete the requirements of the program in addition to their regular degree requirements.

Application to the program takes place via the Co-operative Education Office and is normally submitted after the second semester of Year 1. Admission to the program requires a minimum cumulative quality point average of 2.50 and a minimum quality point average of 3.00 in psychology courses.

Further detail concerning the requirements and regulations of the cooperative education program can be found in Section 3 of this *Calendar*, under Faculty of Science.

The Combined Major in Psychology and Certificate in Human Resource Management [Psychology/Management Option (HRP)]

Students who major in psychology as part of either a Bachelor of Arts or Bachelor of Science degree may also obtain a certificate in Human Resource Management by selecting an appropriate set of interdisciplinary courses. The combined program offers students a sound foundation in basic and applied topics relevant to either a career or graduate training in the field of Human Resource Management and related areas. Students who enrol in this program are required to take eight (8.0) credits as follows:

- a. The following four (4.0) credits:-
 PSY 327.1(.2) MGT 281.1(.2)
 PSY 426.1(.2) MGT 385.1(.2)
 PSY 427.1(.2) MGT 386.1(.2)
 PSY 428.1(.2) MGT 485.1(.2)

- b. Two (2.0) credits from the following Psychology Electives:-
 PSY 309.1(.2) PSY 417.1(.2) PSY 441.1(.2)
 PSY 317.1(.2) PSY 425.1(.2) * PSY 455.1(.2)
 *PSY 399.1(.2) PSY 432.1(.2) * PSY 446.1(.2)

*credit as an elective in the HRM/PSY certificate program is available only when the content of the course, seminar, independent study, or directed research is directly related to the field of Human Resources Management. Students should contact the Department Office to determine if any sections of these courses are recognized as HRM/PSY electives.

- c. Two (2.0) credits from the following Business:-
 ACC 241.1(.2) MGT 391.1(.2)
 ACC 242.1(.2) MGT 392.1(.2)
 CML 201.1(.2) MGT 481.1(.2)
 COM 293.1(.2) MGT 484.1(.2)
 COM 394.1(.2) MGT 488.1(.2)
 COM 475.1(.2) MGT 493.1(.2)
 ECO 201.1(.2) MGT 496.1(.2)
 ECO 202.1(.2) MGT 497.1(.2)
 ECO 339.1(.2) MGT 499.1(.2)
 ECO 340.1(.2) MSC 225.1(.2)
 MGT 388.1(.2)

Students who enrol in this combined program are advised to consult the Department of Psychology for detailed information on a prescribed sequence of courses that will allow them to satisfy both the major and certificate requirements within their specific degree program. Further details are found in Section 4 of this *Academic Calendar*.

THE GRADUATE PROGRAM IN PSYCHOLOGY

The Department offers a Master of Science degree in applied psychology with a concentration in industrial/organizational psychology. Students are admitted with full-time or part-time status. Applications must be received by February 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 in psychology 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.

200.1(.2) Introduction to Psychology (Group C)

A survey of the science and application of psychology.

Note: This course is recommended for students not planning a major in psychology. It may be used to satisfy one quarter of Faculty of Arts' regulation 3d.

210.1(.2) Mind and Brain (Group A)

An overview of the biological foundations of attributes of the brain including consciousness, memory, language, and perception.

220.1(.2) Evolutionary Psychology (Group A)

An analysis of the biological events that shape human behavior. Topics include evolution and social, sexual, and aggressive behavior.

230.1(.2) Memory (Group A)

A review of research and theory in memory.

235.1(.2) Learning (Group A)

A review of the fundamental principles of learning and their applications to human behaviour.

240.1(.2) Human Development (Group B)

An examination of theories of human development across the life span.

250.1(.2) Social Behavior (Group B)

An introduction to the study of social behavior and to contemporary theory and research in the field.

260.1(.2) Personality: Normal and Abnormal (Group B)

History, concepts, models and methods in personality theory and research.

307.1(.2) Biological Origins of Behavior (Group A)

Prerequisite: 0.5 credits in psychology at the 200 level.

An examination of the evolutionary origins of language, parent-child relationships, courtship, mating, aggression, motivation, and emotion.

309.1(.2) Human Factors and Performance (Group A)

Prerequisite: 0.5 credits in psychology at the 200 level.

An examination of human performance in technological environments including the design of tools, systems, and environments.

316.1(.2) Social Cognition and Emotion (Group B)

Prerequisite: one of the following courses: PSY 240.1(.2), 250.1(.2), or 260.1(.2).

An examination of the social aspects of cognition and emotion. Topics will include attitudes and their formation, impression formation, attribution theory, social biases, decision making, and the relation of emotion to behavior.

317.1(.2) Group Dynamics and Intergroup Relations (Group B)

Prerequisite: PSY 250.1(.2)

An examination of key topics in social psychology of group dynamics and intergroup relations. These include conceptualizations of groups and group behavior, the roots and consequences of prejudice and stereotyping, theories of intergroup relations, social identity, and responses to discrimination.

320.1(.2) Psychology and Law (Group B)

Prerequisite: PSY 230.1(.2), PSY 235.1(.2), or 250.1(.2).

A review of empirical studies of pre-sentence legal procedures, including the reliability of eyewitness testimony, the role of experts in the courts, jury selection, and subject apprehension and interview.

327.1(.2) Industrial/Organizational Psychology (Group B)

Prerequisite: 0.5 credits in psychology at the 200 level.

Introduction to methods and problems in industrial/organizational psychology. Representative topics will be drawn from the area of organizational behavior, personnel psychology, human factors, and consumer behavior.

329.1(.2) Child Development (Group B)

Prerequisite: 0.5 credits in psychology at the 200 level.

A survey of physical, perceptual, cognitive, and social development of the child from infancy to preadolescence.

332.1(.2) Adolescent Development (Group B)

Prerequisite: one of the following courses: PSY 240.1(.2), 250.1(.2), or 260.1(.2).

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.

335.1(.2) Abnormal Psychology: History and Theory (Group B)

Prerequisite: PSY 260.1(.2) and 350.1(.2). [PSY 350.1(.2) may be taken concurrently.]

Description, origin, and intervention in specific psychological disorders. A focus on the essentials of history, theories of etiology, assessments, diagnosis and method of treatment.

Note: Credit for this course will not be granted if PSY 335.1(.2) was completed prior to 1 September 2003.

336.1(.2) Abnormal Psychology: Specific Disorders (Group B)

Prerequisite: PSY 335.1(.2) which may be taken concurrently.

A course which focuses on the description etiology, diagnosis and treatment of specific disorders.

Note: Credit for this course will not be granted if PSY 335.1(.2) was completed before 1 September 2003 with the exception of students who completed PSY 335.1A in the 2002-2003 academic year. Credit for PSY 336.1(.2) will also not be granted if PSY 339.2C was completed in the 2002-2003 academic year.

340.1(.2) Research Methods in Psychology (Group C)

Prerequisite: a minimum of 1.0 credit at the 200-level in PSY.

This course familiarizes students with basic principles of experimental and correlational research design, survey design and construction, reliability, validity, qualitative methods, and research ethics.

Classes 3 hrs. and lab 1.5 hrs a week. 1 semester.

347.1(.2) Longevity and Aging (Group B)

Prerequisite: 0.5 credits in psychology at the 200 level.

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.

348.1(.2) Gender Roles (Group B)

[WMS 348.1(.2)]

Prerequisite: one of the following courses: PSY 200.1(.2), 240.1(.2), 250.1(.2), or 260.1(.2).

An introduction to the psychological concept of gender as it relates to behavioral, emotional, and cognitive development. Theories as to the sources of gender differences and similarities will be reviewed and discussed in relation to the impact of gender roles on intimate relationships, family, work, and physical and mental health.

349.1.(2) Drugs and Behavior (Group A)

Prerequisite: 0.5 credits in psychology at the 200 level.

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.

350.1.(2) Psychological Statistics (Group C)

Prerequisite: PSY 340.1.(2).

Statistics with interpretation for the social sciences. Topics will advance areas learned in the prerequisite course and will cover simple and two-way ANOVA, regression, and correlation.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

355.1.(2) Cognitive Psychology (Group A)

Prerequisite: one of the following courses: PSY 210.1.(2), 220.1.(2), 230.1.(2), or 235.1.(2).

A survey of basic perceptual and cognitive processes including attention, sensation, perception, pattern recognition, learning, and memory.

360.1.(2) Applied Sport Psychology (Group B)

Prerequisite: 0.5 credits in psychology at the 200 level.

An examination of sport psychology as applied to performance enhancement, anxiety control, and psychologically healthy lifestyles. This course emphasizes the application of sport psychology to improve the quality of sport and life experiences.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

386.1.(2) Behavioral Analysis and Change (Group B)

Prerequisite: PSY 235.1.(2) and 350.1.(2). [PSY 350.1.(2) may be taken concurrently.]

A review of the principles, procedures, and empirical and theoretical underpinnings of behavior modification.

389.1.(2) Psychology of Personal Adjustment (Group B)

Prerequisite: PSY 235.1.(2), 240.1.(2), and 260.1.(2).

A comprehensive series of presentations covering the application of psychological concepts and principles to personal adjustment. Topics include awareness, past experiences, beliefs, critical thinking, control, values, motivation, stress, self-deception, and coping.

399.1.(2) Special Topics in Psychology (Group C)

Prerequisite: 0.5 credits in psychology at the 200 level.

Courses on selected psychological topics.

400.1.(2) Advanced Research Methods in Psychology (Group C)

Prerequisite: PSY 340.1.(2) and 350.1.(2).

Introduction to advanced empirical research methods and strategies used by psychologists. Both experimental and non-experimental methods will be covered.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

401.1.(2) Advanced Statistics (Group C)

Prerequisite: PSY 350.1.(2) with a minimum grade of B.

The application and interpretation of factorial analysis of variance, repeated measures designs, multiple regression, and various correlation techniques for the social sciences.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

407.1.(2) Introduction to Ethology (Group A)

Prerequisite: PSY 350.1.(2) [or for non-majors, PSY 307.1.(2)].

Introductory study of the principles of early and modern ethology. Topics include instinct and learning, communication, navigation, and behavioral genetics.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

408.1.(2) Comparative Ethology (Group A)

Prerequisite: PSY 407.1.(2).

Comparative examination of human and animal behavior, courtship, territoriality, and social and parental behavior.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

409.1.(2) Brain Foundations of Human Behavior (Group A)

Prerequisite: PSY 210.1.(2) and 350.1.(2).

A review of the specialized human brain functions using the psychoanatomical approach. Emphasis will be placed on hemispheric-behavioral relations.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

410.1.(2) Human Neuropsychology (Group A)

Prerequisite: PSY 409.1.(2).

Background to the clinical understanding of brain-behavioral relations will be provided with special emphasis on higher cortical functions. An introduction to neuropsychological testing and its role in the assessment of neurobehavioral pathology.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

413.1.(2) Thinking and Reasoning (Group A)

Prerequisite: PSY 350.1.(2) and 355.1.(2). Completion of PSY 400.1.(2) and 401.1.(2) is advised.

An examination of higher-order cognitive processes including problem solving, concept formation, knowledge representation, language, reasoning, decision making, creativity and intelligence. Information-processing and connectionist models will be reviewed.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

414.1.(2) Environmental Perception and Cognition (Group A)

Prerequisite: PSY 350.1.(2) and 355.1.(2).

An examination of the manner in which individuals perceive, represent, and adapt to three-dimensional space, including discussions of way finding, route learning, spatial perception, and orientation.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

417.1.(2) Interpersonal Relationships (Group B)

Prerequisite: PSY 350.1(.2) and one of the following courses: PSY 240.1(.2), 250.1(.2), or 260.1(.2).

Intensive coverage of aspects of interpersonal behavior. Topics will include relationship development and maintenance, friendships, sibling relationships, liking and loving, social and cultural influences on interpersonal relationships, sexuality, and gender differences in interpersonal relationships, including dating behaviors and attitudes.

418.1.(2) Environmental Psychology (Group A)

Prerequisite: PSY 350.1(.2).

The study of behavior in its relation to the environment. Topics include personal space, crowding, the city, architectural design, and behavior.

420.1.(2) Disabilities (Group A)

Prerequisite: PSY 210.1(.20) and PSY 350.1(.2); and one half (0.5) developmental course.

This course will examine the biological, psychological, and social impact of various types of acquired and developmental disabilities. This course is divided into three parts: (1) review genetic and environmental factors associated with developmental disabilities; (2) review of the physiological aspects of various types of acquired and developmental disabilities and the outcome; and (3) address the historical, political, ethical issues dealing with persons with disabilities in Canada.

421.1.(2) History of Psychology (Group C)

Prerequisite: 4.0 credits in psychology including PSY 350.1(.2).

An examination of the origins and development of modern psychology.

425.1.(2) The Psychology of Organizational Development (Group B)

Prerequisite: At least 0.5 credits at the 200 level and either PSY 327.1(.2) or MGT 383.1(.2).

An examination of strategies designed to improve organizational effectiveness using behavioral science knowledge. Attention will be devoted to understanding factors that influence the success of organizational change initiatives and the process of change.

426.1.(2) Personnel Training and Development (Group B)

Prerequisite: PSY 235.1(.2) and either PSY 327.1(.2) or MGT 383.1(.2)

Intensive examination of topics related to training and systematic organizational development. Emphasis is on application of psychological concepts and principles of learning in the contexts of needs assessment, curriculum development, transfer of training, and evaluation.

427.1.(2) Organizational Psychology (Group B)

Prerequisite: PSY 327.1(.2) and 350.1(.2).

Extended coverage of topics in organizational behavior with an emphasis on the application of psychological concepts to problems encountered in work environments. Topics may include the structure and climate of organizational environments, leadership, communication, motivation, decision-making.

428.1.(2) Personnel Psychology (Group B)

Prerequisite: PSY 327.1(.2) and 350.1(.2).

Extended coverage of topics in personnel psychology with an emphasis on the application of psychological concepts to problems encountered in work environments. Topics may include job analysis, recruitment and selection, training and performance, performance evaluation, industrial relations, and occupational health and safety.

429.1.(2) Psychology and Religion: A Survey (Group B) [REL 461.1(.2)]

Prerequisite: four (4.0) credits in psychology including PSY 350.1(.2), and one of REL 201.0, 220.1(.2), 221.1(.2) or 251.1(.2).

A survey of theory and research in the psychology of religion.

430.1.(2) Psychology and Religion: Application (Group B) [REL 462.1(.2)]

Prerequisite: four (4.0) credits in PSY and one half (0.5) credit in REL.

A psychological examination of the role of religion in coping.

431.1.(2) Development and Social Context (Group B)

Prerequisite: PSY 350.1(.2) and one of the following courses: PSY 329.1(.2), 332.1(.2), or 347.1(.2).

The development of social relationships within the context of the family and the community.

432.1.(2) Attitudes and Persuasion (Group B)

Prerequisite: PSY 250.1(.2) and 350.1(.2) and one of PSY 316.1(.2), 320.1(.2), or 327.1(.2).

This course is designed to provide students with an introduction to attitude and persuasion research. Particular attention will be given to reviewing the various theoretical perspectives that have been proposed as explanations for the psychological processes underlying persuasion.

434.1.(2) Personality (Group B)

Prerequisite: PSY 260.1(.2) and 350.1(.2).

Examination of selected theories of personality through intuitive, rational, historical, and empirical methods.

436.1.(2) Counselling and Psychotherapy (Group B)

Prerequisite: PSY 336.1(.2) which may be taken concurrently.

A review of the theory, method, and practice in counselling and psychotherapy.

441.1.(2) Psychological Measurement (Group B)

Prerequisite: PSY 350.1(.2).

A review of the nature and use of psychological tests with an emphasis on norms, the interpretation of test scores, test reliability, and test validity.

442.1.(2) Psychological Assessment (Group B)

Prerequisite: PSY 260.1(.2) and 441.1(.2).

A review of psychological tests commonly used in the assessment of intelligence, personality, and psychopathology, with an emphasis on their interpretation.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

445.1.(2) Directed Research in Psychology (Group C)

Prerequisite: 4.0 credits in psychology including PSY 350.1(.2).

Research experience for advanced students on problems in psychology. Students must secure the consent of a member of the Department to supervise their work before attempting to register for the course.

Classes and labs 6 hrs. a week. 1 semester.

446.1.(2) Seminar in Psychology (Group C)

Prerequisite: 4.0 credits in psychology including PSY 350.1(.2).

A seminar for advanced students on specialty areas in psychology. Extensive reading, oral presentations, and written reports or projects will ordinarily be required.

450.1.(2) Behavior Problems of Children

(Group B)

Prerequisite: PSY 329.1(.2) and 350.1(.2).

A review of emotional and behavioral problems exhibited by children, including a survey of classification systems, assessment, and treatment.

456.1.(2) Advanced Counseling and Psychotherapy (Group B)

Prerequisite: PSY 436.1(.2).

Exposure to specific theories and related techniques through (simulated) practice in small groups. This course is designed to familiarize students with the essentials of classic theory which are not covered in PSY 436.1(.2). This course provides a first opportunity to experience, through supervised classroom activity, the "skill sets" which derive from these theories.

Classes 3 hrs. a week and counselling simulations in small groups. 1 semester.

460.1.(2) Advanced Sport Psychology (Group B)

Prerequisite: PSY 360.1(.2).

An examination of human performance in sport. This course emphasizes stress management techniques, and interpersonal and psychological skills as they relate to the pursuit of excellence in sport and life.

486.1.(2) Behavior Therapies (Group B)

Prerequisite: PSY 386.1(.2).

A review of behavioristic orientations to therapy including operant, Pavlovian, Hullian, Wolpean, social learning theory, and cognitive behavior-modification approaches.

Classes 3 hrs. and lab 3 hrs. a week. 1 semester.

489.1.(2) Psychology of Well-Being (Group B)

Prerequisite: PSY 350.1(.2) and 389.1(.2).

A comprehensive series of presentations covering the application of psychological concepts and principles to personal growth and well-being. Topics include authenticity, self-concept, communication, relationships, support, creativity, leadership, modelling, optimal functioning, and happiness.

490.1.(2) Health Psychology (Group B)

Prerequisite: PSY 489.1(.2).

An examination of the psychological factors involved in health, illness, and treatment. Topics include health research methods, health promotion, modification of health behaviors, stress, coping, social support, and personality.

497.1.(2) Community Psychology (Group B)

Prerequisite: PSY 250.1(.2) and 350.1(.2).

A review of the theoretical and empirical foundations of community psychology. The course explores the development of psychosocial environments, methods of assessing community characteristics and their relevance to mental health, and perspectives in community development and social change. Students will be introduced to applied psychology in relation to consultation, epidemiology, and prevention methods.

500.1.(2) Honors Seminar (Group C)

Prerequisite: at least seven (7.0) credits in Psychology or final year of honors program.

This is a seminar designed for honors students. It reviews the current state of theory and research in psychology and prepares honors students for study in graduate and professional programs related to psychology. Extensive reading, oral presentations, and reports or projects will be required.

Seminar.

549.0 Honors Thesis

Prerequisite: honors standing.

A research project in psychology that will serve as the basis for a written thesis. Honors students must secure the consent of a member of the Department to supervise their work before attempting to register for the course.

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**605.1.(2) Personnel Psychology**

Prerequisite: graduate standing.

An examination of the methods and procedures used to select, place, and evaluate personnel. Students are expected to become proficient in the design of selection systems and evaluation of job performance.

606.1.(2) Neuropsychological Assessment**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 T², 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**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) Organizational Psychology

Prerequisite: graduate standing.

This seminar course examines theory and research in areas considered to be the domain of organizational psychology. Although topics may vary depending on faculty and student interest, core areas include work attitudes, leadership, motivation, work groups, and stress.

630.1.(2) Contemporary Issues in Attitudes and Persuasion

This course will: (a) familiarize the student with contemporary research in attitudes and persuasion; (b) familiarize the student with how the concepts in the literature are relevant to applied settings; and applied fields of psychological research such as consumer psychology, health psychology, and industrial/organizational psychology. The course will also focus on developing within the student the ability to critically evaluate theory/research and develop original research ideas.

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 concentration, 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**655.1.(2) Counselling and Psychotherapy****660.1.(2) Behavior Therapies****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.

680.1.(2) Psychological Disorders**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.

Religious Studies (REL)

Chairperson, Professor	P. Bowlby
Professor	T. Murphy
Associate Professors	M. Abdul-Masih, A. Dalton
Professor Emeritus	E. Stiegman

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. Religion and Culture

Religious and culture 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. Religious Studies courses at the 300 level or above are normally for students who have completed at least five (5.0) university credits.

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 (4.0) Religious Studies credits. Three (3.0) of the credits must be at the 300 level or above. An overall quality point average of 2.00 must be maintained in the four (4.0) credits. In a Religious Studies minor students must complete at least two (2.0) of the four (4.0) required courses at Saint Mary's.

B.A. Concentration Requirement in Religious Studies.

Only students in the fifteen (15.0) credit B.A. may complete the concentration requirement in Religious Studies. The requirement may be completed by taking four (4.0) Religious Studies credits. The credits toward the concentration requirement in Religious Studies must include the following:

- One half (0.5) credit from the courses in the Comparative Study of Religion;
- One half (0.5) credit from the courses in Religion and Culture;
- One half (0.5) credit from the courses in Christian Tradition;
- In the four courses, one (1.0) credit may be at the 200 level, at least two (2.0) credits must be at the 300 level, and one (1.0) credit at the 400 level; and
- An overall quality point average of at least 2.00 must be maintained in the four (4.0) credits in a Religious Studies.

A Major in Religious Studies

Students majoring in Religious Studies must fulfil the following requirements:

- the equivalent of six and one-half (6.5) credits in the Department;
- one and one half (1.5) of the six and one-half (6.5) credits 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.);
- in addition to the one and one half (1.5) 400-level credits, majors must complete REL 480.1(2) Advanced Seminar for Majors in Religious Studies and REL 481.1(2) Theories and Methods in the Study of Religions. Majors should complete REL 481.1(2): Theories and Methods as early in their program of study towards a religious studies major as possible. Religious Studies 480.1(2) and 481.1(2) are normally offered in alternating academic years.
- an overall minimum quality point average of 2.00 in the courses counted toward the major;
- at least one (1.0) credit from each of the three general areas in the Department: Comparative Religion, Religion and Culture, the Christian Tradition.
- while not required for the completion of the major, the Department of Religious Studies recommends the completion of one (1.0) credit in a foreign language from among Hebrew, Greek, Latin, Chinese, Japanese, Arabic, French, Spanish, and German.

Advanced 400-Level Courses for Majors and Honors Students in Religious Studies

Most 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

An honors student must complete ten and one half (10.5) credits in religious studies courses which include:

- All of the requirements for a Religious Studies major (6.5 credits);
- An additional one and one half (1.5) credits at the 400 level in religious studies courses;
- An additional one and one half (1.5) credits at the 300 or 400 level;
- In addition to the ten and one half (10.5) credits in religious studies, students must complete at least one (1.0) credit in a language chosen from among: Hebrew, Greek, Latin, Chinese, Japanese, Arabic, French, Spanish and German;
- An honors essay completed in conjunction with Religious Studies 590.0-595.0 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. (See Faculty of Arts regulations in Section 3 of this *Calendar*.)

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.

220.1.(2) Introduction to Comparative Religions, I

Religious Diversity in Canada has come to include the Hindu and Buddhist traditions of South Asia and the Chinese and Japanese traditions. This course examines these religious traditions both in the context of their historical origins and their adaptations to Canadian Society.

221.1.(2) Introduction to Comparative Religions, II

Religious Diversity in Canada includes Judaism, Christianity, and Islam. This course examines these religious traditions both in the context of their historical origins and their adaptations to Canadian Society.

251.1.(2) Religion in Contemporary Culture

This course explores both positive and negative uses of religious themes in contemporary culture. Themes such as salvation, liberation, good and evil, and the supernatural are identified within selected pieces of contemporary art, film, literature, music, Internet, and other media. The use of these religious notions is examined and critiqued in the context of their source, history and meanings within religious communities.

300 and 400-Level Courses

Courses at the **300 level** are intended for students who are not majoring or honoring in Religious Studies; courses at the **400 level** are intended for students officially majoring or honoring in Religious Studies.

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.

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.

303.1.(2) [403.1.(2)] Christian Origins

This course treats the formation and development of Christianity as seen through the letters of Paul. It examines the origin of Pauline Churches, their separation from Judaism, their struggles, beliefs, and worship.

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?

306.1.(2) Cross-listed as CLA 352.1.(2) Women in Antiquity I**307.1.(2) Cross-listed as CLA 353.1.(2) Women in Antiquity II****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.

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?"

312.1.(2) [412.1.(2)] Theologies of 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?

313.1.(2) Cross-listed as CLA 313.1.(2) Art in Late Antiquity and Europe to 14th Century**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.

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.

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.

327.1.(2) [427.1.(2)] The 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.

328.1.(2) [428.1.(2)] The Catholic Church Today

The Catholic Church has radically changed. What does it teach today about faith, revelation, God, Jesus Christ, Sacraments, ethics, and human destiny? Students will be introduced to a brief historical development on each of these teachings.

329.1.(2) [429.1.(2)] Christianity and Contemporary Moral 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.

333.1.(2) [433.1.(2)] Women and Religion Today

[WMS 325.1.(2)]

Women’s groups are having an important impact on traditional forms of religious belief and practice in the world. This course will examine some of the contemporary spiritual movements influenced primarily by women. It will include women’s roles in mainline religions, such as women priests, monks, and ministers, and religiously inspired liberation movements. Radically new religious expressions, such as goddess worship and other pagan forms will also be discussed.

334.1.(2) [434.1.(2)] Christian Spirituality Today

A study of Christianity as experienced today focusing on the topics of prayer, community building toward justice and peace in the world. The focus is on spiritual texts from different aspects of the Christian tradition.

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?

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.

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.

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.

341.1.(2) [441.1.(2)] Violence and Non-Violence: 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.

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.

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.

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.

348.1.(2) [448.1.(2)] Religion and Ecological Issues in the Developing World [IDS 348.1.(2)]

This course will examine the religious and moral issues involved in contemporary debate around the implementation of environmental programs in the so-called developing nations. Population control, competing interests in natural resources, and the role of women’s groups will be among the topics discussed. Attention will be paid to the religious voices involved.

349.1.(2) [449.1.(2)] Science and Religion

In this course we will explore the relationship between science and religion. In the past this relationship was defined mainly by difference, difference in method, understanding of knowledge and language. Because of contemporary crises such as poverty and oppression world-wide and ecological crisis, religion and science are finding new reasons to cooperate. Religious issues involved in this cooperation such as women’s critique, new religious movements and environmental concerns will be examined in this course.

351.1.(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 unreasoned 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.

352.1(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.

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.

356.1(2) Religions in Film**[456.1(2)]**

Feature films and documentaries about religions and religious issues have proliferated in recent years. This course will examine a variety of topics which may include: how selected religious traditions such as Buddhism, Judaism, Hinduism, Christianity and Islam are presented in films; how films depict religious symbols and religious life, how religious and ethical issues are presented in the film narratives and documentary discussions.

357.1(2) [457.1(2)] Being Human: Christian Understanding

How does God relate to humans and how do humans relate to God? The course deals with this question by following the historical development of the theologies on the topic. Beginning with the Hebrew and the Christian scriptures, the course moves on to study authors such as Augustine, Aquinas, Luther and Rahner. The course will also include consideration of contemporary religious experience and questions such as the roles and images of women, the issue of religious pluralism, and the ecology issue.

358.1(2) [458.1(2)] Religious Diversity in Canada

Prerequisite: at least two half courses (1.0 credit) in REL.

In recent decades, religious diversity in Canada has come to incorporate Hindus, Buddhists, Muslims, multiple denominations of Christianity and many new religious movements. This course will examine both the history of religious diversity in Canada and the impact of the Charter of Human Rights and the Multiculturalism legislation. Selected examples of how new religious traditions are adapting in Canadian Society will also be studied.

Classes and seminars 3 hrs. a week. 1 semester.

359.1(2) [459.1(2)] The Buddhist Path: Ritual, Meditation and Wisdom

The course will examine the characteristics of the Buddhist teachings about the path to enlightenment in the three principal schools of Buddhism: Hinayana, Mahayana, and Vajrayana. The focus of the course will be on the types of ritual, the theory and practice of meditation, and the wisdom teachings of the three traditions. Fieldwork may be a required part of the course.

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****367.1(2) [467.1(2)] Cross-listed as ANT 341.1(2); also IRS 340.1(2) The Early Christian Church in Britain and Ireland****370.1(2) Introduction to the Qur'an [470.1(2)]**

An examination of the Qur'an as scripture. The course includes its sources, structure, style, transmission, sciences, interpretation and basic themes.

371.1(2) Life of Muhammad [471.1(2)]

A study of the life of Muhammad, the Prophet of Islam. The course examines his background, career as a prophet and his impact on history.

375.1(2) Cross-listed as EGL 328.1(2) The Catholic Tradition in Modern Literature**376.1(2) Cross-listed as EGL 327.1(2) The Bible and English Literature****377.1(2) [475.1(2)] Introduction to the Bible**

The course introduces the Hebrew Scriptures/Old Testament. Students are introduced to the text along with the cultural and historical context of the biblical literature. The course also examines the meaning and relevance of these scriptures for today.

378.1(2) [476.1(2)] Introduction to the Bible

The course introduces the New Testament scriptures of the Christian tradition. Students are introduced to the text along with the cultural and historical context of the biblical literature. The course examines the meaning and relevance of the New Testament today.

395.(2) - 399.1(2) Special Topics in Religious Studies**461.1(2) Cross-listed as PSY 429.1(2) Psychology and Religion: A Survey****462.1(2) Cross-listed as PSY 430.1(2) Psychology and Religion: Application****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.

481.1(2) Theories and Methods in the Study of Religions

The study of religious traditions includes detailed studies of specific religions, their historical development, and cultural expressions. It includes the study of sacred texts, philosophies, theologies, rituals, sacred images and spaces, and the broad cultural significance of the religious in relation to other aspects of culture. Such multi-cultural and cross-cultural studies began in the nineteenth century and have employed diverse methodologies and theories about how best to study religions. This course will examine the history of the study of religions and review selectively the contemporary debates about the various strategies for the study of religions.

485.1(.2) - 489.1(.2) Special Topics in Religious Studies

These courses will investigate in depth a specific topic or set of topics in Religious Studies. The topic will vary from year to year.

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

220.1(.2)	343.1(.2) [443.1(.2)]
221.1(.2)	345.1(.2) [445.1(.2)]
255.1(.2)	359.1(.2) [459.1(.2)]
323.1(.2) [423.1(.2)]	365.1(.2) [465.1(.2)]
325.1(.2) [425.1(.2)]	366.1(.2) [425.1(.2)]

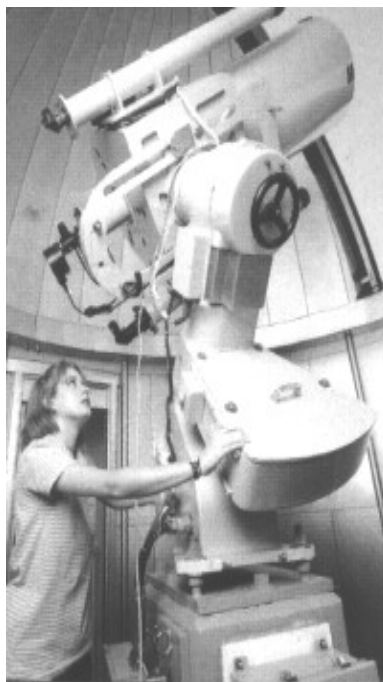
326.1(.2) [426.1(.2)]	370.1(.2) [470.1(.2)]
327.1(.2) [427.1(.2)]	371.1(.2) [471.1(.2)]
337.1(.2) [437.1(.2)]	413.1(.2)
340.1(.2) [440.1(.2)]	416.1(.2)
341.1(.2) [441.1(.2)]	481.1(.2)

2. Religion and Culture

201.0	346.1(.2) [446.1(.2)]	356.1(.2)
251.1(.2)	347.1(.2) [447.1(.2)]	360.1(.2) [456.1(.2)]
306.1(.2) [406.1(.2)]	348.1(.2) [448.1(.2)]	375.1(.2)
307.1(.2) [407.1(.2)]	349.1(.2) [449.1(.2)]	376.1(.2)
317.0 (417.0)	351.1(.2)	413.1(.2)
319.1(.2) [419.1(.2)]	352.1(.2) [455.1(.2)]	461.1(.2)
333.1(.2) [433.1(.2)]	355.1(.2)	462.1(.2)
336.1(.2) [436.1(.2)]		480.1(.2)

3. The Christian Tradition

301.1(.2) [401.1(.2)]	311.1(.2) [411.1(.2)]	334.1(.2) [434.1(.2)]
302.1(.2) [402.1(.2)]	312.1(.2) [412.1(.2)]	338.1(.2) [438.1(.2)]
303.1(.2) [403.1(.2)]	313.1(.2)	357.1(.2) [457.1(.2)]
305.1(.2) [405.1(.2)]	328.1(.2) [428.1(.2)]	367.1(.2) [467.1(.2)]
309.0 [409.0]	329.1(.2) [429.1(.2)]	377.1(.2)
		378.1(.2)



Saint Mary's University Observatory houses a 0.4 metre reflecting telescope, one of the most powerful in Eastern Canada.

Sociology and Criminology (SOC and CRM)

Chairperson, Associate Professor Professors	M. VanderPlaat G. Barrett, L. Christiansen-Ruffman, R. Cospes, J. McMullan, H. Veltmeyer
Associate Professors Assistant Professors	S. Bell, D. Perrier, E. Tastsoglou M. Byers, M. Ighodaro, V. Johnson, L. Kowalchuk, A. MacNevin, S. Schneider A. Schulte-Bockholt, D. Crocker
Co-ordinator of Criminology: Undergraduate	M. VanderPlaat
Co-ordinator of Criminology: Graduate Studies	S. Bell
Adjunct Professors	C. McCormick, N. Okihiro
Professor Emeritus/a	P. Connelly, H. Ralston

Department Mission

The Department offers programs of study that are designed to provide students with a strong undergraduate experience in both sociology and criminology. Majors and honors programs are offered in each field. Students are particularly encouraged to complete a double major program in sociology and criminology. The Department also offers both a Master's degree and a Graduate Diploma in Criminology. Courses are also mounted that support such other academic programs as those in Asian Studies, Atlantic Canada Studies, International Development Studies, Linguistics, and Women's Studies.

Sociology (SOC)

All students are welcome into the Department's sequence of introductory courses, SOC 210.1(.2) and SOC 212.1(.2). These satisfy the prerequisites for almost all 300-level sociology courses. Majors follow a different path: after SOC 210.1(.2) they must take SOC 211.1(.2), which also satisfies the prerequisites for almost all 300-level courses. In addition, this gives students access to the required theory and methods courses at the 300 level and the required 400-level seminars. Students who meet both University and Departmental requirements are invited to consider the honors program.

In any particular year or summer session, the Department has resources to offer only a portion of the courses listed in this *Academic Calendar*. It is the student's responsibility to secure an up-to-date timetable prior to registering for any sociology courses.

Introductory Courses

All students begin sociology with SOC 210.1(.2). Thereafter, potential majors with at least a grade of C in SOC 210.1(.2) must take SOC 211.1(.2). Other students may take either SOC 211.1(.2) or SOC 212.1(.2). All 300-level courses require SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

Students who have received credit for SOC 200.0 cannot receive additional credit(s) for any of these courses. SOC 200.0 also serves as a prerequisite to courses at the 300 level and to the major.

Major Program

The following requirements apply to all students who declare their major on or after 1 September 1995.

Students are expected to decide on a major in sociology during their first course, SOC 210.1(.2). If students complete that course with at least a minimum grade of C, they fulfil the prerequisite requirement to enrol in SOC 211.1(.2), which offers an introduction to sociology as a social scientific research practice. This course will be taught in controlled enrolment sections in specific areas of faculty interest. The achievement of a minimum grade of C in this course allows students to apply for a major in sociology.

To complete a major in sociology, students must satisfy the following requirements:

- Both Introductory Sociology [210.1(.2)] and Critical Issues in Social Analysis [211.1(.2)] must be completed with a minimum grade of C.
- All other courses required for the sociology major must be completed with a cumulative quality point average of at least C.
- While acceptance as a major in sociology depends on the student's final grade in SOC 211.1(.2), potential majors are expected to file a "Declaration of Major" form while enrolled in the course. Once final grades have been received and processed, the Department will notify the student whether their request to major in sociology has been accepted or rejected. Those students who are accepted are responsible for seeking faculty advice.
- Normally in the second year of a three-year program, but certainly after the completion of SOC 210.1(.2) and 211.1(.2) (which are prerequisites), students must complete Classical Sociological Theory [362.1(.2)]; Contemporary Sociological Theory [363.1(.2)]; Research Design [364.1(.2)]; and Data Analysis [365.1(.2)]. Students are advised to note that SOC 362.1(.2) and SOC 364.1(.2) are also prerequisites respectively for SOC 363.1(.2) and 365.1(.2).
- Complete 2.0 credits at the 300 or 400 level.
- Complete the equivalent of a full-credit (1.0) seminar at the 400 level. Students are advised to check carefully as to which courses do not fulfil this requirement. These are noted in the *Academic Calendar*.
- FOR STUDENTS MAJORING IN SOCIOLOGY AND CRIMINOLOGY A MAXIMUM OF ONLY TWO (2.0) CREDITS CAN BE DOUBLE COUNTED FOR CROSS-LISTED COURSES.**

Minor Program

The minor in sociology requires 4.0 credits in sociology completed with a minimum quality point average of C. These courses are:

- Introductory Sociology [210.1(.2)] and either Understanding Society [212.1(.2)] or Critical Issues in Social Analysis [211.1(.2)].
- The equivalent of 3.0 credits in sociology at the 300 or 400 level. For students majoring in sociology and criminology only two (2.0) credits can be double counted for cross-listed courses.

B.A. with a Concentration in Sociology

Students in a fifteen (15.0) credit B.A. program with a concentration in Sociology are required to complete four (4.0) Sociology credits with a minimum quality point average of 2.00. Courses cross-listed with Criminology may not be double counted.

Honors Program

This is a selective program to which students may either apply or be invited to apply for admission. Successful completion assists students in applications to both graduate and professional schools. While the program follows general University requirements as found in Section 3 under Faculty of Arts, there are also some regulations particular to the Department of Sociology. **To be admitted to the Honors program students must have achieved a minimum cumulative quality point average of at least 3.30 in Sociology courses and a minimum quality point average of at least 3.00.** Students should obtain these detailed requirements from the Department before making application for honors. Students are expected to make application between 1 February and 1 May of the year before they wish to begin the honors program and to register in the Honors Seminar course, SOC 530.0. The application for honors must be accompanied by a faculty member's written agreement to serve as a supervisor for the honors thesis, which is an integral part of the requirements of SOC 530.0.

Each honors student's program is supervised by the Department and requires the following:

1. Honors Seminar [SOC 530.0];
2. Advanced Research Methods [493.1(.2)];
3. one-half (0.5) credit in Advanced Sociological Theory: either SOC 495.1(.2) or 496.1(.2);
4. three (3.0) additional 400-level sociology credits. No more than one (1.0) of these three (3.0) credits may be from the following: SOC 406.0; SOC 407.0; 408.0; 409.1(.2); and SOC 410.1(.2).

To continue in and graduate from the Honors program, a student must achieve and maintain a minimum quality point average of 3.30.

Note: All courses are the equivalent of three hours a week each academic year, although specific course schedules are decided by the Department.

210.1(.2) Introductory Sociology

This course is intended to give a basic introduction to the discipline. It will examine the sociological imagination which understands human life as fundamentally explained by our membership in social groups. Particular attention will be given to the basic theories, concepts and methods through which this view is explored. This course is required for either SOC 211.1(.2) or SOC 212.1(.2).

211.1(.2) Critical Issues in Social Analysis

Prerequisite: minimum grade of C in SOC 210.1(.2).

This course is for potential majors. It will introduce them to theory and research in an area which is a specialty of particular members of faculty. This material is intended to tie directly into the required 300-level theory and methods courses and to expose students to the practice of sociology as a scientific research activity.

212.1(.2) Understanding Society

Prerequisite: SOC 210.1(.2).

This course is for non-majors. It follows SOC 210.1(.2), Introductory Sociology, and will be concerned with some of the basic questions sociologists consider important. These topics can change from year to year and may include aging, crime and society, deviance, ethnicity, gender, inequality, social development, socialization, work, globalization, leisure, and problems in Canadian society.

302.0 Social Problems

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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.

304.0 Deviance

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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]****308.0 Urban Sociology****310.1(.2) Society and the Environment**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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**313.0 Sociology of Kinship and Family****314.0 Sociology of Health and Illness**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

This course investigates the social aspects of health and illness and the consequence of these notions to medical practice. Health and illness are often considered reflective of an objective biological state. In this course we will examine the social-historical forces which inform this perception and explore its connection to other topics including: the development of biomedicine, the "medicalization of behavior," cross-cultural and historical perspectives on the experience of pain and dying, gender and health and the social meaning of illness.

**315.0 Corrections
[CRM 305.0]**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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)]****319.0 Reform and Revolution in Latin America**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2); or a course in WMS.

The analysis of the social, political and cultural conditions which have shaped women's lives at different stages in Canada's history and of the ways in which women as social actors have contributed to both their own and to Canada's development. In the context of women's struggles for change, the course also considers the legacies of patriarchy, sexism and the sexual division of labor in various contemporary Canadian social and cultural institutions and examines their impact on women as well as the potential for social transformation and change. Particular emphasis will be placed on women in Atlantic Canada.

321.0 Canadian Society**322.0 Political Sociology**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2); or a course in POL.

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**324.0 Social Stratification****327.0 Social Policy****328.1(.2) Social Gerontology**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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.

329.1(.2) The Family in Later Life

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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.

330.1(.2) Sociology of Retirement

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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.

331.1(.2) Modernization and Aging

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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.

332.0 Sociology of Atlantic Canada**333.0 Social Movements**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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.

334.0 Cross-listed as CRM 315.0-316.0 Selected Issues in Criminology**336.1(.2) Work and Occupations in Contemporary Society****337.1(.2) Leisure in Contemporary Society****338.1(.2) Language Change and Social Change****[LIN 338.1(.2)]**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2); or declared minor in Linguistics.

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**[LIN 339.1(.2)]**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2); or declared minor in Linguistics.

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 SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2); or a course in ANT.

An analysis of racial, ethnic, and minority group structure and of inter-group processes in different societies, with special emphasis given to Canadian society.

341.1(.2) Women and the Media

[WMS 341.1(.2)]

Prerequisite: SOC 210.1(.2) and 211.1(.2)

Women and the media is a course intended to broaden student understanding on how gender is constructed within various mass media, and to encourage critical thinking about the many categories of 'woman' at play in the mass media. These images are socially constructed and give us a vast amount of information about the positions women occupy in society. This course focuses on how the media influences our perception of individuals and groups on the basis of gender, as well as at the point where gender intersects with race, class, sexuality, and generation.

342.1(.2) Social Interaction**343.1(.2) Society as Drama****344.0 Asylums, Prisons, and Other Total Institutions****345.1(.2) Cross-listed as CRM 320.1(.2) Women, Law and The State****346.1(.2) Crime and the Media**

Prerequisite: SOC 210.1(.2) and 211.1(.2).

The focus of this course is on the depiction of crime in various media of mass communication. Area of study includes corporate crime, violent crime, gangs, organized crime and terrorism. This course also examines how gender, race and class are related to the way crime is depicted in the mass media.

350.1(.2)-351.1(.2) Contemporary Issues in Sociology

Prerequisite: SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

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; or SOC 210.1(.2) and either SOC 211.1(.2) or 212.1(.2).

This course is intended to lay the foundation for critical inquiry in the area of media and mass communication. The objectives of this course are a) to examine the mediums of mass communication in both a Canadian and global context, and b) to study the products of these mediums critically in order to understand how they are used to define cultures and individuals. Of particular interest to this course is the examination of how differences in individuals (such as ethnicity, class, gender and sexuality) are both produced by and dealt with in the mass media.

353.1(.2) Industry and Labour in Contemporary Society**354.0 Cross-listed as CRM 307.0 Policing and Society****355.1(.2) Cross-listed as CRM 308.1(.2) Corporate Crime****356.1(.2) Cross-listed as CRM 309.1(.2) Victimology****357.1(.2) Cross-listed as CRM 310.1(.2) Criminal Law****358.1(.2) Cross-listed as CRM 311.1(.2) Culture and Crime****359.0 Cross-listed as CRM 312.0 Young Offenders and Juvenile Justice****362.1(.2) Classical Sociological Theory**

Prerequisite: SOC 200.0; or SOC 210.1(.2) and 211.1(.2).

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; or SOC 210.1(.2) and 211.1(.2); and SOC 362.1(.2).

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-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.

364.1(.2) Research Design

[CRM 364.1(.2)]

Prerequisite: SOC 200.0; or SOC 210.1(.2) and 211.1(.2).

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-credit 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-credit course and either/or both half-credit courses.

365.1(.2) Data Analysis

Prerequisite: SOC 200.0; or SOC 210.1(.2), 211.1(.2); and SOC 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-credit 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-credit course and either/or both half-credit courses.

366.1(.2) Field Methods in Sociolinguistics I

[LIN 366.1(.2)]

Prerequisite: 1.0 credit in SOC or LIN; or permission of instructor.

An introduction to techniques of collecting sociolinguistics data in the field. The course focuses on the kinds of linguistic and social information needed to describe languages and their variation and use.

367.1(2) Field Methods in Sociolinguistics II**[LIN 367.1(2)]**

Prerequisite: SOC 366.1(2); or equivalent course, e.g. LIN 310.1(2).

A continuation of SOC 366.1(2). Students gain experience in the actual collection of data on a language.

371.1(2) Evaluating Social Programs**372.1(2) Social Impact Analysis****381.0-382.0 Cross-listed as CRM 315.0-316.0 Selected Issues in Criminology****385.1(2) Problems of Development****[IDS 485.1(2)]**

Prerequisite: SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or 212.1(2); or a course in ECO or POL.

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.

386.1(2) Sociology of Developing Societies**[IDS 386.1(2)]**

Prerequisite: SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or 212.1(2); or a course in ECO or POL.

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).

387.1(2) Women and Development**[WMS 387.1(2)]**

Prerequisite: SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or 212.1(2); or IDS 300.0.

This course will examine the role of women in development. It will examine the changing structure of the division of labour 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 labour-intensive multinational industries, particularly those drawing on female labour; 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**[CRM 313.1(2)-314.1(2)]**

Prerequisite: SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or 212.1(2).

These courses are designed to enable a student to examine a particular criminological issue in detail.

390.1(2) Gender, Race and Justice**[CRM 306.1(2)]**

Prerequisite: SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or 212.1(2).

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; or SOC 210.1(2) and either SOC 211.1(2) or 212.1(2).

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.

392.1(2) Cross-listed as CRM 321.1(2) Critical Issues in Policing**393.1(2) Cross-listed as CRM 322.1(2) Woman Battery and the Criminal Justice System****404.1(2) Cross-listed as CRM 402.1(2) Issues in Juvenile Justice****405.0 Sociology of Labour****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 fulfilment 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 363.1(2) and 365.1(2).

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 fulfilment of requirement (c) for majors.

411.1(2) Cross-listed as CRM 414.1(2) The Politics of Youth Crime**412.0 Sociological Perspectives on Aging**

Prerequisite: SOC 328.1(2), 363.1(2) and 365.1(2).

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 363.1(.2) and 365.1(.2).

This is a seminar 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**417.0 Seminar on Endangered Languages (LIN 417.0)**

Prerequisite: at least 10.0 university credits.

The existence of many of the world's 6,000 languages is threatened and most will probably not survive the next century. In this seminar, students explore the social forces affecting language maintenance. Language growth, decline and death are considered in the global context of linguistic diversity.

418.1(.2) Media, City and Space

Prerequisite: SOC 351.1(.2) and/or 352.1(.2).

This course is intended for senior students who have already taken courses in media studies and wish to continue this work at a higher level. The course focuses on the relationship between the mass media and how we understand and come to know the spaces and places we inhabit.

Seminar: 3 hrs. a week. 1 semester.

419.0 Sociology of the Environment

Prerequisite: SOC 363.1(.2) and 365.1(.2); or ENV 300.1(.2) or a declared major in IDS.

This seminar examines the role of community participation in the environmental movement, and the prospects for ecologically sustainable development. The comparative analysis of environmental discourses, and the varying interests and assumptions that underlie each form, is followed by an examination of the political ecology perspective. Studies of public policy, market-led environmentalism, indigenous knowledge and customary resource management, and the environmental movement itself, are some other themes covered in the course.

420.0 Comparative Regional Development**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) and 365.1(.2).

This seminar 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 and Practice [IDS 423.1(.2)/623.1(.2); WMS 423.1(.2)]

Prerequisite: SOC 363.1(.2) and 365.1(.2).

This seminar 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

The course will focus on the social dynamics of globalization - a trend towards worldwide reach, impact, or connectedness of social phenomena. The issues addressed are diverse but will include questions about the social agencies of globalization, such as the transnational corporation, and the structural forces involved. The global dynamics of such institutions, as well as their social impacts will be explored from a Political Economy perspective.

430.0 The Sociology of Alcohol Use

Prerequisite: SOC 363.1(.2) and 365.1(.2).

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**[CRM 400.0]**

Prerequisite: SOC 363.1(.2) and 365.1(.2) or completion of the core requirements in criminology.

An interdisciplinary examination of the creation, interpretation, and enforcement of law in connection with historical change, social and cultural norms, unequal power, relations, and the concerns of legal decision-makers. Using theory, history, government documents, and case law, this course encourages critical thinking on legal discourse and related social policy issues around class, gender, race, sexuality, colonialism, citizenship, and nations.

432.1(.2) Gender and Law**[CRM 401.1(.2) and WMS 432.1(.2)]**

Prerequisite: SOC 363.1(.2) and 365.1(.2) or completion of the core requirements in criminology.

By providing an examination of the gendered nature of conventional understandings of law, social control and deviance, this seminar 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; 441.0; 442.1(.2)-444.1(.2) Selected Studies in Sociological Analysis

Prerequisite: SOC 363.1(.2) and 365.1(.2).

An upper level seminar 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 [WMS 447.1(.2)]

448.0 Feminist Analysis

[WMS 448.0]

Prerequisite: SOC 363.1(.2) and 365.1(.2).

This seminar focuses on problems of studying women, including sex bias in research. It analyzes contemporary experiences using theories and methodologies of feminist sociology, global feminism, and women's studies.

450.0; 451.1(.2); 452.1(.2) Selected Topic

Prerequisite: SOC 363.1(.2) and 365.1(.2).

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**461.1(.2) Survey Analysis**

Prerequisite: SOC 364.1(.2) and either 365.1(.2) or CRM 302.1(.2).

The seminar 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.

462.1(.2) Quantitative Methodology

Prerequisite: SOC 461.1(.2).

Advanced level seminar 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.

468.1(.2) Women's Organizations and Change

[WMS 468.1(.2)]

480.0 Ethnicity and the Canadian State**481.0 Gender, Ethnicity and Migration**

[WMS 481.0]

482.1(.2) Gender and International Migration

[WMS 482.1(.2)]

Prerequisite: completion of the Criminology core program requirements or SOC 363.1(.2) and 365.1(.2).

This is a course on the theory and practice of international migration taking an explicitly gendered perspective. It discusses the conceptual and theoretical frameworks on migration and gender and migration; the history of selected migration movements with a focus on the role of women; women in the migratory process, employment and family issues; the impact/consequences of international migration on development; contemporary migration policies; forced migration and refugee issues; gender and transnationalism.

493.1(.2) [593.1(.2)] Advanced Research Methods

Prerequisite: SOC 363.1(.2) and 365.1(.2).

This course will examine a range of quantitative and qualitative research methods in areas, which reflect the interests of students and faculty. The course will explore strengths and weaknesses of different approaches, and the appropriate selection and application of various data collection and analytical techniques. Topics covered may include survey research, interview techniques, field research, historical and documentary analysis.

495.1(.2)-496.1(.2) [595.1(.2)-596.1(.2)] Advanced Sociological Theory

Prerequisite: SOC 363.1(.2) and 365.1(.2).

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 fulfilment of requirement (c) for majors.

530.0 Honors Seminar

(CRM 500.0)

Prerequisite: enrolment in honors program.

The purpose of this seminar is to aid students in the preparation of an honors thesis on a topic agreeable to both the student and the faculty. The thesis should be approximately 10,000 words of text and should demonstrate an integration of theoretical, analytical and methodological skills appropriate to a degree at the honors level. It is expected that there will be an empirical component to the thesis.

Criminology (CRM)

The purpose of a Bachelor of Arts degree in criminology, including the honors program, is to provide students with an opportunity for focused study in an area relating to criminal behavior and society's subsequent reaction to it. The development of a coherent program at the undergraduate level enables students to obtain a solid foundation in criminology for possible careers in the criminal justice system; for further study at the graduate level; and for the pursuit of criminology-related disciplines. Students learn about crime, criminality, law and justice through the study of criminological thought, debates and issues. A structured honors program is included for its outstanding undergraduate students.

B.A. with a Concentration in Criminology

Students in a 15.0 credit B.A. program with a concentration in CRM are required to complete four (4.0) CRM credits with a minimum quality point average of 2.00. Courses cross-listed with Sociology may not be double counted.

Major Program

For admission to the program, students must have completed SOC 210.1(.2) and 211.1(.2) with a minimum grade of C in each course; and one (1.0) additional credit with a minimum grade of C from the following courses: ANT 200.0; ANT 202.1(.2), ANT 280.1(.2), ECO 201.1(.2); ECO 202.1(.2); HIS 240.0; POL 200.0; POL 230.1(.2); PSY 200.1(.2); PSY 250.1(.2); or PSY 260.1(.2).

To major in criminology, students must complete seven (7.0) credits including:

a. three (3.0) credits from core courses;

Note: Core courses should be taken in the first year that a student begins the major program.

b. two (2.0) credits from Group A elective courses;

c. one (1.0) credit from Group B elective courses; and

Note: 400 level (Group B) elective courses should be taken in the fourth year of the major program.

- d. one (1.0) credit from Group C cognate courses.

Because of the significant interest in Criminology, the number of qualified students permitted to declare Criminology as their major or subject of honors may have to be limited.

1. Core Program Courses [three (3.0 credits)]

Note: To register for each of these core courses, students must already be a declared major in Criminology.

- CRM 300.1(.2) Classical Criminological Theory
- CRM 301.1(.2) Contemporary Criminological Theory
- CRM 302.1(.2) Criminal Statistics
- CRM 303.1(.2) Crime and Society
- CRM 304.1(.2) Canadian Criminal Justice System
- CRM 364.1(.2)/SOC 364.1(.2) Research Methods

2. Group A - Elective Courses [two (2.0 credits)]

Complete two (2.0) CRM credits at the 300 level.

3. Group B - Elective Courses [one (1.0 credit)]

Complete one (1.0) CRM credit at the 400 level or PSY 320.1(.2); PSY 335.1(.2); PHI 332.1(.2) and PHI 333.1(.2).

4. Group C - Cognate Courses [one (1.0 credit)]

The equivalent of one (1.0) credit at the 300 or 400 level not listed as part of the Criminology major (i.e. core courses, Group A or Group B) in one of the following social sciences: anthropology, economics, geography, political science, psychology and sociology.

FOR STUDENTS MAJORING IN SOCIOLOGY AND CRIMINOLOGY ONLY TWO (2.0) CREDITS CAN BE DOUBLE COUNTED FOR CROSS-LISTED COURSES.

Honors Program

Students must apply between 1 February and 1 May of the year before they wish to begin the honors program. To be admitted, students must have achieved a minimum quality point average of 3.30 in Criminology courses and a cumulative quality point average of 3.00. A student's application must be accompanied by a faculty member's written agreement to serve as a supervisor for the honors thesis, which is an integral part of the requirements of CRM 500.0. This is a five (5.0) credit program. To graduate a student must maintain and achieve a minimum quality point average of B+ (3.30) in the following courses:

- a. CRM 500.0/SOC 530.0 Honors Seminar;
- b. CRM 501.1(.2) Advanced Criminological Theory;
- c. CRM 502.1(.2) Advanced Research Methodology in Criminology;
- d. CRM 503.0 Directed Readings in Criminology
- e. Two (2.0) additional credits from Group B electives. No more than one (1.0) of these credits may be Directed Reading courses.

Certificate Program in Criminology

The Department of Sociology administers the Certificate Program in Criminology (CRM) through its Program Co-ordinator, only to students accepted to the program prior to the 1997-98 academic year. No new applicants are being accepted. Students interested in pursuing criminology as an area of study should consider the Criminology major program. As of 1 September 1998, the following course substitutions are in effect: CRM 310.1(.2) for SOC 203.1(.2); CRM 300.1(.2) and CRM 301.1(.2) for SOC 303.0; CRM 303.1(.2) and CRM 304.1(.2) for SOC 307.0.

300.1(.2) Classical Criminological Theory

Prerequisite: formal declaration of a major/honors in criminology.

This course introduces students to the major themes of classical criminological theory. Students will examine key criminological debates which have influenced contemporary criminological theory, including those

from the 18th and 19th century. Topics may include early biological, individualistic, political, and social explanations of crime and criminality.

301.1(.2) Contemporary Criminological Theory

Prerequisite: formal declaration of a major/honors in criminology and CRM 300.1(.2).

This course introduces students to the major themes of contemporary criminological theory. Topics may include the influence of urban life, gender, race, media and politics in explanations of crime and criminals, the regulations and governance of society through various social control mechanisms and the impact of feminist and postmodernist writings for theorizing about crime and criminality.

302.1(.2) Criminal Statistics

Prerequisite: formal declaration of a major/honors in criminology and CRM/SOC 364.1(.2).

The purpose of this course is to develop an understanding of the strengths and weaknesses of criminology research and crime statistics. Techniques of crime measurement, prediction, recidivism, research design and data interpretation will be addressed. The course will focus on quantitative methods and analysis.

303.1(.2) Crime and Society

Prerequisite: formal declaration of a major/honors in criminology.

This course introduces students to contemporary patterns, issues, problems and themes pertinent to the field of criminology in Canada.

304.1(.2) Canadian Criminal Justice System

Prerequisite: formal declaration of a major/honors in criminology.

This course examines the process of the criminal justice system in Canada. The roles, powers, and discretion of the police, the courts, and the correctional system are examined.

Note: Students with a credit for SOC 307.0 are not eligible to enrol in CRM 304.1(.2).

305.0 Cross-listed as SOC 315.0 Corrections

306.1(.2) Cross-listed as SOC 390.1(.2) Gender, Race and Justice

307.0 Policing and Society

[SOC 354.0]

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or SOC 212.1(.2).

This course is designed to explore critical issues in the policing of modern societies. The social role of the police and police practices in contemporary society will be examined. Topics will include the functions and objectives of modern policing, the exercise of police powers, the use of police discretion, the nature of police misconduct, the structures of police accountability and control, and the issues and problems of policing in a multicultural society.

308.1(.2) Corporate Crime

[SOC 355.1(.2)]

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(.2) and either SOC 211.1(.2) or SOC 212.1(.2).

This course examines and analyzes the nature, scope and impact of corporate crime, the principle organizational, social, political, and economic factors in the definition and commission of such crimes, and the ways in which governments and legal systems respond to the problems.

309.1(2) Victimology**[SOC 356.1(2)]**

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

This course offers an introduction to the study of victims of crime. Theoretical explanations and methodological techniques will be examined along with victim profiles and patterns of criminal victimization. The course will also address victim/victimizer attitudes and the role and impact of victims and the victim movement on the criminal justice system.

310.1(2) Criminal Law**[SOC 357.1(2)]**

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

This course is designed to familiarize students with Canadian criminal law. The course will focus on topics such as the history, nature and functions of criminal law, its elements and role in a democratic society, exemptions from criminal responsibility, its principles and procedures, and its administration and enforcement.

311.1(2) Culture and Crime**[SOC 358.1(2)]**

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

This course examines the relationship between culture and crime. Attention is given to the cultural representations of crime and the cultural dimensions of criminal justice through a review of the category of crime in a variety of discourses (newspapers, television, government policy, fiction).

312.0 Young Offenders and Juvenile Justice**[SOC 359.0]**

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

This course takes an historical/comparative approach to the study of youth crime and juvenile justice in Canada. It examines changing definitions of youth crime, contemporary crime patterns, their explanation and proposed solutions. Societal responses to youth crime are addressed with a particular emphasis on the Young Offenders Act, its comparison to the Juvenile Delinquents Act, and a critical examination of youth corrections.

Note: Students with a credit for SOC 454.0 are not eligible to enrol in CRM 312.0/SOC 359.0.

313.1(2)-314.1(2) and 315.0-316.0 Selected Issues in Criminology
[SOC 388.1(2)-389.1(2) and SOC 381.0-382.0]

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

These courses are designed to enable a student to examine particular criminological issues in detail. They will be offered according to faculty availability and expertise.

320.1(2) Women, Law and The State**[SOC 345.1(2)]**

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

This course will provide in depth consideration of feminist perspectives on the relation of women to the state and law. The nature of the contribution of criminal and family law to the reproduction of gender relations will be analyzed. The implication of legal intervention and nonintervention in

family relations, sex specific, and sex-related legislation will be examined. Theoretical concepts such as patriarchal relations, sexuality and reproduction, state violence, formal and informal social control will be addressed. The regulation of women outside the criminal justice system will be examined.

321.1(2) Critical Issues in Policing**[SOC 392.1(2)]**

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

Examines critical issues in modern policing by delving into their historical antecedents and modern rationales. We shall examine wide-ranging issues such as policing domestic violence, police unionism and anti-unionism, community-based policing, problem-oriented policing, and privatization. Students will gain a critical theoretical appreciation of the institutions of policing and their relationship to the state.

322.1(2) Woman Battery and the Criminal Justice System**[SOC 393.1(2)]**

Prerequisite: formal declaration of a major/honors in criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

Examines the role of criminal justice intervention for battered women by investigating the impact of the police, courts, and alternative programs. We will analyze the role of the Battered Women's Movement, academic research, and policy making. Feminist, family violence, and psychological perspectives will be considered.

323.1(2) Drug Control in the 20th Century: An Investigation of Origins, Race, Class and Gender

Prerequisite: completion of core courses for criminology major.

This course will provide a critical analysis of the assumptions underlying licit and illicit drugs, drug categories, pharmaceutical industry, The Controlled Drugs and Substance Act, and the "War on Drugs". The social construction of illicit drug use will be examined within an historical, cultural, political, and socio-economic context. Issues of moralism, race, class, and gender will be explored in relation to past and current drug policy.

324.1(2) The Political Economy of Organized Crime

Prerequisite: formal declaration of a major/honors in Criminology; or SOC 200.0; or SOC 210.1(2) and either SOC 211.1(2) or SOC 212.1(2).

The course introduces students to the study of organized crime. It investigates cultural and historical issues as well as the depiction of organized crime in film and literature. It focuses on the links between organized crime groups and socioeconomic elites in different parts of the world.

350.1(2) Cross-listed as PSY 320.1(2) Psychology and Law**351.1(2) Cross-listed as PSY 335.1(2) Abnormal Psychology****352.1(2) Cross-listed as PHI 332.1(2) Ethics and the Law****353.1(2) Cross-listed as PHI 333.1(2) Philosophy of Law****364.1(2) Cross-listed as SOC 364.1(2) Research Design****400.0 Cross-listed as SOC 431.0 Law in Society****401.1(2) Cross-listed as SOC 432.1(2)/WMS 432.1(2) Gender/ Law**

402.1.(2) Issues in Juvenile Justice**[SOC 404.1.(2)]**

Prerequisite: SOC 363.1.(2) and 365.1.(2) or completion of the core criminology requirements; CRM 312.0 (SOC 359.0).

This is a seminar course that offers an in-depth examination of contemporary issues associated with youth crime and juvenile justice. Topics to be examined include explaining law reform, class, race, and gender issues in juvenile justice, the administration of youth justice, youth corrections, community alternatives, and restorative justice.

Note: Students with a credit for SOC 454.0 are not eligible to enrol in CRM 402.1.(2).

403.0 Penology

Prerequisite: completion of the criminology core requirements.

This seminar traces the history of penal methods and the development of contemporary corrections with particular focus on the origins of imprisonment. This seminar will study contemporary correctional institutions with particular emphasis on the impact of prisons on inmates, prison subcultures, prison administration, and the assessment of educational, occupational and treatment programs. Correctional processes, as these relate to the typologies of offenders, and special problems of female, youthful and persistent offenders will be examined.

Note: Students with a credit for SOC 455.0 are not eligible to enrol in CRM 403.0.

404.1.(2) Critical Criminology

Prerequisite: completion of the criminology core requirements.

This seminar focuses on various themes in criminological theory which adopt a critical perspective of crime, crime control, law and criminality. Topics may include the politicization of crime and crime control, the significance of gender and race issues in explanations of crime and criminality, and criminalization as a mode of control.

Note: Students with a credit for SOC 457.1.(2) are not eligible to enrol in CRM 404.1.(2).

405.1.(2) Comparative and Historical Criminology

Prerequisite: completion of the criminology core requirements.

This seminar course examines the nature of deviance, crime and social control in past societies. It focuses on the development of criminal law and evidence, policing, the institutionalization of deviance and crime, penalty, the rise of social surveillance and social discipline, changing images of criminality and the social regulation of women.

Note: Students with a credit for SOC 458.1.(2) are not eligible to enrol in CRM 405.1.(2).

406.1.(2)-407.1.(2) and 408.0 Advanced Studies in Criminology

Prerequisite: completion of the criminology core requirements.

These seminar courses are designed to provide seminars pertaining to particular interests of faculty and students in criminology.

409.1.(2)-410.1.(2) and 411.0 Directed Readings in Criminology

Prerequisite: completion of the criminology core requirements.

Intensive readings under the supervision of a faculty member in areas related to the student's program.

412.1.(2) Cross-listed as ANT 470.0 Forensic Anthropology**414.1.(2) The Politics of Youth Crime****[SOC 411.1.(2)]**

Prerequisite: SOC 363.1.(2) and 365.1.(2) or completion of the core criminology requirements; CRM 312.0 (SOC 359.0).

This seminar course will examine the discourse of youth crime through an analysis of crime statistics, media reports, empirical research, theoretical perspectives, and risk management strategies. Its purpose will be to deconstruct current youth crime myths and the xenophobia directed toward youth in Canadian Society.

Note: Students who already have a credit for SOC 454.0 cannot also receive credit for this course.

415.1.(2) Drugs and Power in Latin America

Prerequisite: completion of the Criminology core program requirements and CRM 324.1.(2).

It is the goal of the course to familiarize the student with the complexity of Latin American Organized Crime. We will examine the historical and cultural dimensions of the drug trade, the evolution and role of specific criminal groups, as well as the drug war in the Americas.

416.1.(2) Soviet and Post-Soviet Organized Crime

Prerequisite: completion of the Criminology core program requirements and CRM 324.1.(2).

The goal of the course is to familiarize the students with organized crime in the Soviet and Post-Soviet era. Students review the history of the USSR and investigate the role of Communist Party and State in the creation of the black market and the Mafiya. Students also explore the rise of organized crime after 1991 as well as its internationalization.

417.1.(2) Sex & Gender in Criminology and Law

This is a seminar course designed to explore the major themes in feminist criminology and legal studies. The seminar will include discussion of empirical and theoretical contributions to the field, but the main focus will be on theory. Substantive topics covered include victimization, policing woman abuse, girls in gangs and female criminality. We will also critically evaluate how these topics are constructed in criminological and legal discourse. Conceptually, the course explores victimization, masculinity, subjectivity and discourse.

500.0 Honors Seminar**[SOC 530.0]**

The purpose of this seminar is to aid students in the preparation of an honors thesis on a topic agreeable to both the student and the faculty. The thesis should be approximately 10,000 words of text and should demonstrate an integration of theoretical, analytical and methodological skills appropriate to a degree at the honors level. It is expected that there will be an empirical component to the thesis.

501.1.(2) Advanced Criminological Theory

Prerequisite: enrolment in honors program.

This seminar course examines key debates and themes in criminological theory. Attention is given to the critical theoretical accomplishments of various writers.

502.1.(2) Advanced Research Methodology in Criminology

Prerequisite: enrolment in honors program.

This course will examine a wide range of quantitative and qualitative research methods and techniques used in criminological research. This course will emphasize the strengths and weaknesses, selection and

application of various methodological techniques in conducting criminological research. These will include the application of statistical, experimental, and quasi-experimental techniques as well as the use of field research, interview techniques, historical and documentary analysis.

Note: Students are advised to enrol in SOC 493.1(2) in years when CRM 502.1(2) is not offered.

503.0 Directed Readings in Criminology

Prerequisite: enrolment in honors program.

This course is designed to allow students to pursue a specific topic in criminology in considerable depth. Students are expected to demonstrate initiative and independence in this course of study.

Master of Arts in Criminology (M.A.)

Detailed requirements for the Master of Arts in Criminology are found in Section 3 of this *Calendar*.

Graduate Diploma in Criminology [G.Dip.(CRM)]

Detailed requirements for the Graduate Diploma in Criminology are found in Section 3 of this *Calendar*.

Graduate courses are available to students registered in the Masters and Graduate Diploma Programs in Criminology. Other students must have approval of the Graduate Program Co-ordinator in the Department of Sociology.

The following courses are available only to students registered in the Master of Arts in Criminology or the Graduate Diploma in Criminology.

600.0 Advanced Seminar in Criminology

Prerequisite: graduate standing.

This seminar course will examine current theory and research by faculty and prepare students for thesis work.

601.1(2) Advanced Criminological Theory

Prerequisite: graduate standing.

This seminar course is concerned with examining current themes and debates in criminological theory. Attention will be given to the influence of critical social theory, postmodernist, and poststructuralist writings for theorizing crime and criminality. Students may also be exposed to debates and critical discussions concerning criminology as a body of knowledge, the future of criminology as a discipline, and the relationship between the study of crime and criminals and social policy and crime control.

602.1(2) Advanced Research Methodology in Criminology

Prerequisite: graduate standing.

This seminar course is designed to cover advanced topics, issues and techniques in criminological research. Topics may include the following: advanced multivariate statistical techniques, documentary and historical methods, evaluative and predictive research, participant observation/ethnography, and system analysis.

603.1(2)-604.1(2) and 605.0 Advanced Topics in Criminology

Prerequisite: graduate standing.

These courses are designed to provide seminars pertaining to particular interests of faculty and students in criminology.

606.1(2)-607.1(2) and 608.0 Directed Readings in Criminology

Prerequisite: graduate standing.

Intensive readings under the supervision of a criminology faculty member, in areas of interest related to the student's program of study.

609.1(2)-610.1(2) and 611.0 Selected Topics in Criminology

Prerequisite: graduate standing.

Concentrated studies in areas of student specialization.

615.0 Thesis Research

Prerequisite: graduate standing.

Research conducted under the supervision of an advisory committee.



The McNally Building from Robie Street.

Women's Studies (WMS - undergraduate; GWS - graduate)

Undergraduate Committee on Women's Studies

K. Ahojja-Patel, Co-ordinator	International Development Studies
E. Asp	English
S. Bell	Sociology and Criminology
M. Byers	Sociology
J. Cauville	French
L. Christiansen-Ruffman	Sociology
D. Crocker	Sociology
S. Crooks	Philosophy
A. Dalton	Religious Studies
A. Dobrowsky	Political Science
P. Fitzgerald	Management
K. Flikeid	French
E. Haigh	History
M. Harry	English
T. Heffernan	English
R. Hulan	English
W. Katz	English
E. Keeble	Political Science
D. Kennedy	English
L. Kowalchuk	Sociology
M. MacDonald	Economics
A. MacNevin	Sociology
H. McGee	Anthropology
N. Sharif	Economics
E. Tastsoglou	Sociology
G. Thomas	Classics
G. Thomas	English
M. VanderPlaat	Sociology
L. Van Esch	Marketing
S. Walter	Anthropology

The Saint Mary's Women's Studies program is designed to facilitate cooperation with other universities in the Halifax area. The program offers an interdisciplinary Bachelor of Arts degree in Women's Studies and an Honors degree 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

1. Students must complete seven (7.0) credits in Women's Studies. Normally they will accomplish this by taking the following courses:
 - a. WMS 200.1(.2)
 - b. WMS 420.1(.2) and 421.1(.2)

- c. the equivalent of one (1.0) credit 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 2210 A/B, 3310 A/B, 3311 A/B (from Mount Saint Vincent); or WOST 3500 A/B (from Dalhousie)].
- d. four and one half (4.5) additional WMS credits 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 established Letter of Permission system.

2. All courses for the major must be approved by the Co-ordinator of the WMS program at Saint Mary's.

3. Students must satisfy all the requirements for a major in the Faculty of Arts as delineated in Section 3 of this *Calendar*.

Requirements for an Honors

1. For admission to honors in Women's Studies, students must have a minimum quality point average of 3.0 in Women's Studies courses. This average must be maintained for continuance in the honors program.

2. In addition to the requirements for a major in Women's Studies, students must complete five (5.0) credits as follows:

- a. either four (4.0) credits from Women's Studies, or three (3.0) credits from Women's Studies and one (1.0) from a discipline related to the student's interest. Courses in which the content is women's studies related, but are not officially cross-listed as Women's Studies, may be substituted for Women's Studies credits with the permission of the Co-ordinator. Students are also encouraged to take advantage of course offerings in Women's Studies Programs at Mount Saint Vincent and Dalhousie Universities.

- b. Honors Seminar (WMS 520.0), which will include an honors thesis. The honors thesis should be in an area of Women's Studies of interest to the student; be approved by the instructor; and demonstrate knowledge of theory and methodology of Women's Studies in the area chosen.

3. Students must meet the requirements for honors in the Faculty of Arts as delineated in this *Calendar*.

4. Students may do double honors in Women's Studies and another area of their choice according to the Faculty of Arts regulations set down in this *Calendar*. They must also meet any additional requirements of the second academic program involved.

Requirements for a Minor

In addition to the general requirements for a minor outlined in Faculty of Arts Regulation 6(a), students should ensure that they complete one full credit (1.0) from either WMS 420.1(.2) and WMS 421.1(.2) or one full credit described in 1(c) above.

Requirements for a Concentration

To obtain a concentration in Women's Studies in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of fifteen (15.0) credits), a minimum of four (4.0) credits in WMS is required; also a minimum cumulative quality point average of 2.00. Further details are available from the co-ordinator.

Note: The abbreviation for undergraduate courses in Women's Studies is WMS.

200.1.(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).

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, or permission of instructor.

320.0 Cross-listed as SOC 320.0 Women in Canadian Society

Prerequisite for WMS 320.0: SOC 200.0, or 1.0 credit in WMS.

321.1.(2) Cross-listed as CRM 320.1.(2) Women, Law and the State**325.1.(2) Cross-listed as REL 333.1.(2) Women and Religion Today****326.1.(2) Cross-listed as EGL 326.1.(2) Language and Gender****341.1.(2) Cross-listed as SOC 341.1.(2) Women and the Media****348.1.(2) Cross-listed as PSY 348.1.(2) Psychology of Gender Roles**

Prerequisite for WMS 348.1.(2): one of PSY 200.1.(2), 240.1.(2), 250.1.(2), and 260.1.(2).

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****360.0 Cross-listed as HIS 360.0 A History of Women in the Western World****380.0 Cross-listed as PHI 380.0 Philosophical Issues in Feminism****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.

393.1.(2) Cross-listed as CRM 393.1.(2) Women Battery and the Criminal Justice System**404.1.(2)-405.1.(2) and 406.0 [604.1.(2)-605.1.(2) and 606.0] 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 labour 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 [614.1.(2)-615.1.(2) and 616.0] 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) [620.1.(2)] Feminist Traditions in Scholarship**

Prerequisite: at least 13.0 credits or permission of instructor.

Students will study the emergence of feminist theoretical perspectives, methodologies and analytical approaches in several disciplines in the humanities and social sciences.

421.1.(2) [621.1.(2)] Feminist Traditions in Contemporary Scholarship

Prerequisite: WMS 420.1.(2).

Students will study the role of feminist theoretical perspectives, methodologies and analytical approaches in the contemporary practice of several disciplines in the humanities and social sciences.

422.1.(2) [622.1.(2)] Cross-listed as 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) [623.1.(2)] Cross-listed as SOC 423.1.(2) Gender and Development: Policy and Practice

Prerequisite for WMS 423.1.(2): theory and methods courses in WMS or sociology or permission of instructor.

427.1.(2) Cross-listed as EGL 427.1.(2) Language, Gender and Power
Prerequisite: at least 1.5 credits at the 300-level or above.**432.1.(2) Cross-listed as SOC 432.1.(2)/CRM****401.1.(2) Gender and Law****433.1.(2) [633.1.(2)] Cross-listed as FRE 433.1.(2) Women's Literature in France****434.1.(2) [634.1.(2)] Cross-listed as FRE 434.1.(2) Women's Literature in French Canada****447.1.(2) Cross-listed as SOC 447.1.(2) Work and the Empowerment of Women in India****448.0 [GWS 647.1.(2)/GWS 648.1.(2)] Cross-listed as SOC 448.0 Feminist Analysis**

Prerequisite for WMS 448.0: previous or concurrent theory and methods courses in WMS or sociology or permission of instructor.

449.1.(2) [649.1.(2)] Cross-listed as POL 449.1.(2) Women and Public Policy

451.1(2) [GWS 651.1(2)] Cross-listed as POL 451.1(2) Gender and International Relations

461.1(2) [GWS 661.1(2)] Cross-listed as EGL 461.1(2) Polemical Writing by Women

468.1(2) [GWS 668.1(2)] Cross-listed as SOC 468.1(2) Women's Organizations and Change

481.0 Cross-listed as SOC 481.0 Gender, Ethnicity and Migration

482.1(2) [GWS 682.1(2)] Cross-listed as SOC 482.1(2) Gender and International Migration

514.1(2) and 515.1(2), 516.0 Advanced Directed Readings in Women's Studies

Prerequisite: admission into honors in Women's Studies or permission of instructor.

520.0 Honors Seminar

Prerequisite: admission into honors in Women's Studies.

The purpose of the honors seminar is to aid students in the preparation of their honors theses. Students will deepen their knowledge of feminist theory, methodology, historical, and theoretical perspectives in the disciplines related to the topic of their honors theses. They will develop their research proposals and complete their honors theses within the context of this course.

550.0 Cross-listed as EGL 550.0 Special Author

Prerequisite for WMS 550.0: enrolment in the English honors program, or special recommendation of the Department of English, or permission of instructor.

NOTE: THE ABBREVIATION FOR GRADUATE COURSES IN WOMEN'S STUDIES IS GWS.

GWS 601.1(2) Theories of Feminism

This class provides an in-depth study of feminist theory. It will look in particular at the development of theories over time and across borders, focusing on common assumptions and debates among feminists.

GWS 602.1(2) Feminist Methodologies

This class examines feminist critiques and strategies around knowledge and research methodologies. It explores historical and contemporary debates on important research issues.

GWS 604.1(2)-605.1(2) and 606.0 Contemporary Issues of Feminism
See WMS 404.1(2)-405.1(2) and 406.0 above for descriptions.

GWS 609.1(2) - 611.1(2); 612.0 - 613.0 Directed Study

Directed Study will allow students to draw on a range of faculty research interests on topics where classes are not regularly offered.

GWS 614.1(2)-615.1(2) and 616.0 Directed Readings in Women's Studies

See WMS 414.1(2)-415.1(2) and 416.0 above for descriptions.

GWS 620.1(2) Feminist Traditions in Scholarship

See WMS 420.1(2) above for description.

GWS 621.1(2) Feminist Tradition in Contemporary Scholarship

See WMS 421.1(2) above for description.

GWS 630.1(2) Graduate Seminar

This seminar will be used to discuss student research proposals and to provide a forum to integrate material from other classes and colloquia. It will bring together issues of Feminist theory, methodology and praxis with an interdisciplinary perspective. This class will meet bi-weekly throughout both semesters.

GWS 631.1(2) Community-Based Learning

In this course students engage in learning which is community-based and developed in the context of each student's interests and needs. Students explore the theoretical, methodological and practical implications of their experiences from a feminist perspective. This class will meet bi-weekly throughout both semesters.

GWS 698.0/699.0 Thesis

Students are required to produce a thesis worth two (2.0) credits. Therefore students must register in both these courses simultaneously. The thesis will require a proposal, will demonstrate research and communication skills and must be defended to fulfil the requirements. The thesis must meet the specifications of the institution at which the student is enrolled.

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 Co-ordinator.

**Financial Information
Student Awards
and
Financial Aid Programs**

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 and financial policies for the 2004-2005 academic year had not yet been determined. The fees and financial policies listed in this Section were those for 2003-2004 and are subject to change before 1 September 2004. All fee calculations are made at registration without prejudice and are subject to confirmation and adjustment at a later date.

Students seeking financial information should address their inquiries and correspondence to:

Supervisor, Accounts Receivable
Financial Services
Saint Mary's University
Halifax, Nova Scotia
B3H 3C3

Telephone: (902) 420-5468

Fax: (902) 496-8184

E-mail: accounts.receivable@smu.ca

(Fees and Policies listed below were those in effect for 2003-2004)

Tuition Fees

	Cost per Course (i.e., 1.0 credit)
Undergraduate Per Course Tuition Fees	
- Courses in the Faculty of Arts	989.00
- Courses in the Faculty of Commerce	989.00
- Courses in the Faculty of Science	1,009.00
- Diploma in Engineering	
- 100 and 200 Level EGN Courses	750.00
- 300 Level EGN Courses	1,009.00
- Co-op Work Term	500.00

Science courses are offered in the academic units of Astronomy & Physics, Biology, Chemistry, Environmental Studies, Geology, Math & Computing Science and Psychology. The cost for a full 1.0 credit course administered by the Faculty of Science includes a Science Technology Fee of \$20.00. Therefore, the cost for a half credit (.5) course taught in the Faculty of Science is \$504.50.

The fee also applies to Faculty of Science cross-listed courses. Therefore, a cross-listed science course available as a credit in the Faculty of Arts or Commerce will be priced with the Science Technology Fee included. For example, Geography 313.1/Geology 373.1 will be priced as a course in the Faculty of Science.

	Cost per Course (i.e., 1.0 credit)
Graduate Per Course Tuition Fees	
- M.A. - Atlantic Canada Studies	\$1,353.00
- M.A. - Criminology	1,353.00
- Graduate Diploma: Criminology	1,353.00
- M.A. - History	1,353.00
- M.A. - Philosophy	1,353.00
- M.A. - International Development Studies	1,086.00
- Graduate Diploma: I.D.S.	1,086.00
- M.A. - Women's Studies	1,086.00
- M.Sc. - Applied Psychology	1,086.00
- M.Sc. - Applied Science	1,086.00
- M.Sc. - Astronomy	1,086.00
- M.B.A.	1,019.00

Other fees

MBA Program Fee per year	600.00
Thesis Continuation	
Per semester in Academic Year	150.00
Per Summer School Session	75.00
Major Research Paper MBA Continuation	
Per semester in Academic Year	30.00
Per Summer School Session	20.00
Leave of Absence Fee	
Per semester in Academic Year	30.00
Per Summer School Session	20.00

Graduate Program Fees

PhD in Management per year	5,000.00
Executive Master of Business Administration	
Non refundable seat deposit	
applied to first year fees	1,000.00
Year 1 of two year program	18,000.00
Year 2 of two year program	18,000.00

Compulsory Student Fees

Student Fees –

Students' Association and Journal fees are compulsory for all students with the exception of those registered exclusively in courses offered in extension centres. Compulsory medical plan details are described in Section 8.

		Per Semester	Per Academic Year
Students' Association	Full Time	\$58.75	\$117.50
	Part Time	18.50	37.00
The Journal Newspaper		2.00	4.00
U-Pass Metro Bus	8 months		110.00
	4 months	55.00	
Canadian Medical	Single		134.00
	Family		289.00
International Medical	Single		537.00
	Family		1066.00

International Differential Fees and International Status

Any student who is not a Canadian Citizen or a Permanent Resident must pay an international differential fee. The fee is assessed on a per course basis, the number of courses taken determines the amount of differential fee charged.

Course Load	Per Semester	Per Academic Year
Undergraduate	494.50	989.00
Graduate	494.50	989.00
COOP	500.00	
Thesis continuation	150.00	300.00
MRP MBA Continuation	30.00	60.00

Landed Immigration or Permanent Citizenship papers that support a change to a student's file must be presented to the Registrar's Office. The international differential fee will be dropped for the semester following the receipt of notification of change in immigration status.

International students who send money in advance and withdraw from the University after registration or do not register may have the funds returned to their country of origin with the applicable service charges deducted.

Class Withdrawals and Refunds

The deadlines for academic withdrawal differ from those for financial adjustment of tuition and related fees.

All course withdrawals are officially processed through the Registrar's Office. Non-attendance in classes does not constitute an official withdrawal. It is not compulsory to attend classes, however students are still responsible for tuition and all related charges for all courses in which they are registered. Therefore, official notification must be given to the Registrar's Office for all course withdrawals. (See Academic Regulation 16 for further details).

Students** who officially withdraw prior to the first day of classes will receive a refund of any fees paid, less a \$50.00 complete withdrawal administrative processing fee.

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 four week period. The following schedule was in effect for 2003-2004.

Tuition and Differential Refund for the weekending

	1st Semester	2nd Semester
	Fall 2003	Winter 2004
Refund is 70%	23 September -	23 January
Refund is 55%	30 September -	30 January
Refund is 40%	07 October -	06 February
Refund is 25%	14 October -	13 February

If the adjustment of fees will result in a refund, the student must apply for the refund directly to Accounts Receivable, Financial Services.

Students who leave the University without officially withdrawing and who subsequently officially apply for and are granted a retroactive withdrawal by the Registrar's Office, will be charged a \$50.00 administration processing fee in addition to the regular University fees assessed to the student's official withdrawal date established by the Registrar.

**Fees and withdrawal scales as outlined above do not apply to the Executive Master of Business Administration, the PhD program in Management, the MBA – CMA, and the Master of Finance degrees.

Examples of 2003-2004 Fee Calculations

Example #1

Canadian Student: 5 Full-Credit Undergraduate Arts Program (Courses: 4 Arts, 1 Science – e.g. Psychology)

	1st Semester	2nd Semester	Total
Tuition:			
4.0 Arts	\$1,978.00	\$1,978.00	\$3,956.00
1.0 Science	504.50	504.50	1,009.00
Medical	134.00	0.00	134.00
Student Fees	170.75	60.75	231.50
Total	\$2,787.25	\$2,543.25	\$5,330.50

Example #2

International Student: 5 Full-Credit Undergraduate Commerce Courses

	1st Semester	2nd Semester	Total
Tuition	\$2,472.50	\$2,472.50	\$4,945.00
Medical	537.00	0.00	537.00
Student Fees	170.75	60.75	231.50
Differential	2,472.50	2,472.50	4,945.00
Total	\$5,652.75	\$5,005.75	\$10,658.50

Example #3

Canadian Student: One-Half Credit Undergraduate Arts Course in Each Semester

	1st Semester	2nd Semester	Total
Tuition	\$494.50	\$494.50	\$989.00
Student Fees	20.50	20.50	41.00
Total	\$515.00	\$515.00	\$1,030.00

Special Fees

Complete Withdrawal – processing fee	\$50.00
Binding of Master's Thesis (3 copies)	50.00
Official Transcript (see Academic Regulation 32)	5.00
Special Examination	50.00
Late Registration	50.00
Academic Appeal	30.00
NSF Cheque Fee	20.00
Identification Card Replacement	15.00
International File Fee	50.00
Income tax duplicate receipts	5.00
Parking	
Tenant Underground	\$170.00 (No HST) for 8 months \$250.00 (No HST) for 12 months
Non-Tenants Underground	\$200.00 + HST for 8 months \$300.00 + HST for 12 months
Other Outside	\$140.00 per year (HST included)

Residence Fees

Accommodations and Meal Plans are described in Section 8. The residence application fee is \$25.00.

Room Rates

	Per Semester	Per Academic Year
Room and Board		
Single Room		
Meal Plan 1	\$3,279.00	\$6,558.00
Meal Plan 2	3,436.50	6,873.00
Meal Plan 3	3,539.00	7,078.00
Meal Plan 4	3,749.00	7,498.00
Double Room		
Meal Plan 1	\$2,957.50	\$5,915.00
Meal Plan 2	3,115.00	6,230.00
Meal Plan 3	3,217.50	6,435.00
Meal Plan 4	3,427.50	6,855.00

Room Only

Apartment	\$1,704.50	\$3,409.00
Senior Suites Shared Bath	2,572.50	5,145.00
Private Bath	2,444.00	4,888.00

Residence Withdrawal and Refunds

Students who withdraw from residence, and simultaneously from the University, are eligible for an adjustment of room and meal plan 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.

Payment of Fees

Methods of Payment

Payment can be made by debit bank card, money order, draft, Visa, MasterCard, or cheque. Cheques should be drawn on a Canadian Financial Institution and made payable to "Saint Mary's University". Students may

also use their access to SATURN to make a credit card payment to their account.

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 when registering.

Students paying for all or part of tuition and fees with any sort of loan should note that the University fee deadlines are applicable, regardless of the form of payment.

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.

The University reserves the right to require full payment of all fees at the time of registration. For example, when all or substantially all of Canada Student Loans are released during the first semester, Student Accounts will require full payment of academic year fees.

Students who register by mail during regular registration periods can choose to pay a deposit only. Students who register in person during late registration periods must pay all first semester fees at the time of their initial registration.

a. Regular - July Registration - By Mail or SATURN

A deposit must be paid as part of regular July academic registration, the balance of the first semester fees is due no later than 30 September. (Please note: In September, the total fall fees due at time of In Person registration.)

3 courses or more in the first semester	\$200.00
Less than 3 courses in the first semester	\$100.00

b. Late Registration - In Person - September

All first semester fees are due and payable the time of registration, \$200 deposit option is **not** available.

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 their fees from a Canada Student Loan but who have not received their loan, will be permitted to register if (a) they can provide proof of loan application and (b) they pay the appropriate deposits listed below:

Tuition only (3 courses or more)	\$400.00
Single Room/Meal Plan	\$850.00
Double Room/Meal Plan	\$800.00
Apartment	\$500.00
Senior Suite	\$600.00

Second Semester Fee Payment

Students continuing their studies in the second semester must pay the balance of all fees on or before 15 January.

January Registration

Students who register in January must pay all fees at that time.

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.

Late Payment of or Unpaid Accounts

Registration Privileges

Students who have not paid all fees may have their registration cancelled at the discretion of the Registrar and upon the recommendation of the Manager, Accounting. 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.

Students whose accounts are in arrears will not be permitted to register until the account has been paid in full.

Late Payment and Interest Charges

Students who do not pay first semester fees by 30 September and/or second semester fees by 15 January will be charged \$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.

In addition, any account outstanding after 30 September in the first semester and/or after 15 January in the second will be charged an interest charge of one percent (1%) per month or part thereof (12.68% per annum).

Also, students who do not pay their summer school fees by the dates published in the Summer Session Registration Book will be charged the late payment and the interest fees.

Students paying for all, or part, of tuition and fees with any sort of loan should note that the University fee deadlines are applicable, regardless of the form of payment. Late penalty and interest charges apply equally to all students. 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.

Students whose accounts are in arrears will be denied marks, transcripts and may be denied graduation.

Student Awards and Financial Aid Programs

Definition

Scholarship - An award granted on the basis of academic merit. Normally, Dean's List standing is recognized.

This subsection is indexed for easy reference:

A. Awards Administered by Saint Mary's University

1. Entrance Scholarships

Canadian Applicants

* Each year Saint Mary's University awards a number of entrance scholarships to high school students throughout Canada.

* Students are automatically considered for entrance scholarships if they have achieved a minimum of 80% average as calculated by the Admissions Office.

* Entrance scholarships are valued up to \$3,500.00 and are non-renewable.

* Presidential scholarships are valued at \$7,000.00 and are renewable for a total of \$28,000.00. Students ranked number one in their graduating class are considered and must provide a resume along with a letter of recommendation from their school.

* Santamarian Scholarships are valued at \$4,000.00 and are renewable for a total of \$16,000.00. Students highly ranked in their graduating class are considered.

Note: Recipients of Presidential and Santamarian Scholarships are not eligible also to receive achievement or named scholarships.

* The deadline for scholarship consideration is March 15. Awards are announced after April 15.

International Applicants

* Each year Saint Mary's University awards a number of entrance scholarships to International high school students.

* Students are automatically considered for entrance scholarships if they have achieved a minimum of 80% average as calculated by the Admissions Office.

* Entrance scholarships are awarded up to \$3,500.00 and are non-renewable.

* The deadline for scholarship consideration is March 15. Awards are announced after April 15.

Contact the Admissions Office for more information:

Tel. 902-420-5415.

2. Achievement Scholarships (undergraduate)

Conditions: Candidates must qualify according to the regulations for scholarship holders outlined below. No application is required.

Value: \$1,000.00 to \$3,500.00.

Duration: One year. Students who qualify for the Dean's List are considered each year as they progress satisfactorily toward a **FIRST** undergraduate degree.

3. 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. 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 Development.

Detailed award values, criteria, and application information for the named undergraduate scholarships and bursaries can be obtained from the Financial Aid Office or by accessing Student Services through the Saint Mary's University homepage.

The scholarship application deadline for the 2003-2004 academic year is 25 May 2003.

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 early February 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 or requalify.

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 Accounts Receivable, Financial Services, to those students requesting them, after 15 November for the first semester and after 28 February for the second semester.

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**.

Note: The criteria for awarding entrance and continuing scholarships is currently under review, which may well result in revisions to these criteria.

d. In order to be considered for an undergraduate scholarship, students must have completed at least five (5.0) credits 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 in writing of any possible transfer credits by that date.

e. Students who receive scholarships from Saint Mary's must register in at least five (5.0) credits in order to be eligible for the scholarships for that academic year. An exception will be made for graduating students who require only three (3.0) or more credits 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 re-enter 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 deposit is required for registration.

4. 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 to the Director of Continuing Education with an updated résumé and previous academic transcripts.

5. 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)

For information concerning these external awards application procedures, eligibility, and addresses, please contact the Financial Aid Office or access Student Services through the Saint Mary's University homepage.

Canada Student Loans Program

Students requiring financial assistance to help meet their educational expenses should 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.

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 Student Aid 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).

Notification of Award

Students found eligible for Canada Student Loans from Nova Scotia 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 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 Financial Services, 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. Students apply to the Provincial Student Aid Office in their Province of Study.

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 from the appropriate Provincial Student Aid Office. Assistance with more complicated appeals is available by contacting the University Financial Aid Counsellor.

Nova Scotia

Student Aid Office
Telephone 902-424-8420 General Inquiries
Voice Response Unit 902-424-7737
TDD 902-424-2058
Toll free in Nova Scotia
1-800-565-8420 General Inquiries
1-800-565-7737 Voice Response Unit
<http://www.ednet.ns.ca/educ/student/menu.htm>.

New Brunswick

Student Financial and Support Services
Voice Response: 506-453-4796 (Fredericton area) or
1-800-667-5626 (Atlantic Provinces, Ontario, and Quebec only)
<http://www.gov.nb.ca/ael/stuaid/guide.htm>.

Newfoundland

Student Aid Division
709-576-2648 Recording
709-576-4235 Information and Assistance
1-800-563-2000
<http://www.edu.gov.nf.ca/studentaid/>

Ontario

Student Awards Branch
Ministry of Colleges and Universities
Student Support Board
189 Red River Road, 4th Floor
PO Box 4500
Thunder Bay, Ontario
P7B 6G9
1-807-343-7260
1-800-465-3013 (within Ontario)
<http://osap.gov.on.ca>

Prince Edward Island

Student Aid Office
902-368-4640
http://www.gov.pe.ca/educ/resources/stu_aid/index.asp

Quebec

Direction generale de l'aide
financiere aux etudiants
1035, de la Chevrotiere
Quebec, Quebec
G1R 5K9
418-643-3750
24-hour automated service 514-864-4505 or
418-646-4505
<http://www.meq.gouv.qc.ca/afe>

Note: Addresses for Student Aid Offices in other provinces are available upon request from the Financial Aid Office.

**SPORT HALL OF FAME INDUCTION
18 OCTOBER 2003**



Athletic Director, Dr. David Murphy, explains the significance of the sword cane of the late Father J. J. (“The Hen”) Hennessey, S.J.



The inductees from the Huskie Basketball Team of 1978 admire their portrait which will hang in the Saint Mary’s University Sport Hall of Fame. In the Centre of the Group are President J. Colin Dodds and Athletic Director Dr. David Murphy.

**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 research related to the environment.

Objectives

The purposes and functions of the Centre are to provide:

1. a mechanism for interdisciplinary research relating to the environment;
2. opportunities for interaction of faculty and departments in a common theme; and
3. a focal point to facilitate discussions with business and government agencies for research grants and contracts relating to environmental subjects.

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.

Research

Members of the Centre are engaged in a wide range of activities including studies of climate change and its impacts, air, soil and water pollution, geothermal energy, hydrocarbon separation processes, impacts of mining on the landscape, weathering of rocks and treatment of mine tailings, environmental impacts on ecosystems, conservation, habitat restoration, coastal zone management, fisheries management, effects of pollution on fish parasites, microbial insecticides, and palaeoenvironment analysis.

Contact: M. Lamoureux. Phone: 902-420-5652; fax: 902-496-8104; e-mail: marc.lamoureux@smu.ca.

The Atlantic Centre for Ethics and Public Affairs

In the spring of 2003, Saint Mary's University and The Atlantic School of Theology (AST) established The Atlantic Centre for Ethics and Public Affairs, located on the AST campus, Halifax. As a community based project, this Centre will bring researchers from across the region together to foster cross-cultural and interfaith conversation on ethical issues, and encourage dialogue between AST, Saint Mary's, and the wider community. The first of its kind in Atlantic Canada, The Centre has been designated as a high priority in the strategic plan of both AST and Saint Mary's; is sponsored jointly by the two institutions; and is a direct result of the formal affiliation, achieved in 2002.

The purpose of the new Atlantic Centre for Ethics and Public Affairs will be to serve the public of Atlantic Canada through research, discussion and policy recommendations focusing on ethical issues arising locally and internationally from fundamental changes in society. The new Centre will collaborate across disciplines and build coalitions with community partners on a project by project basis. It is to be university based and will exist to promote dialogue between the academy and downtown. From its base in the university, its task will bring the scholarly expertise of faculties and students from the humanities, theology, the social sciences, the sciences and commerce into conversation with one another about selected ethical issues.

Business Development Centre

The Saint Mary's University Business Development Centre (SMUBDC) was established in 1989 as part of the University's community outreach initiatives. Two basic objectives guide SMUBDC in its operations:

1. introducing the challenges and opportunities facing today's organizations to Saint Mary's Commerce and MBA students while providing career training to these students; and
2. providing private and public sector clients with cost-effective business consulting and counselling services.

Involvement at SMUBDC, either through the Business Consulting course and/or part-time or summer employment, allows students to experience the impact that business planning and financial management have on an organization. By working with SMUBDC and its clients, students are better able to understand the relationship between management, marketing, accounting, and finance in a practical business setting. Past students have said that participation at the Centre "is definitely a positive working experience for any business student" and "provides excellent grounds for students to apply their business knowledge in today's marketplace."

SMUBDC focuses on giving students hands-on experience and linking them with both the business community and with potential employers. By combining students with experienced business consultants and university resources, SMUBDC offers students a unique chance to collaborate with potential and existing business ventures. SMUBDC offers a wide range of business consulting and counselling services including business planning, market and promotional planning, financial statement preparation, community development planning, customized training, and special projects.

SMUBDC's office is located in downtown Halifax at 1546 Barrington Street close to Spring Garden Road. For more information about SMUBDC or its Business Consulting course, visit the SMUBDC's website at www.smu.ca/smubdc; or call SMUBDC at 902-429-2992. We look forward to working with you.

CN Centre for Occupational Health and Safety

In April 2002, the CN Centre for Occupational Health and Safety was announced. Housed in The Frank H. Sobey Faculty of Commerce, this CN Centre will be the only centre of its kind in Canada and fits the mission of both CN and Saint Mary's. As the President of the University acknowledged, the funding from CN will permit Saint Mary's to leverage additional funding sources to develop a centre of excellence with a powerful, economic and social impact in Canada and internationally. On the other side, the President and CEO of CN indicated that CN is proud to take our commitment to safety to a new level by way of this donation to Saint Mary's. The Sobey Faculty of Commerce has earned a reputation as one of the top business schools in the country and we are pleased to be associated with it.

Building on Saint Mary's strengths in human resource management and industrial and organizational psychology, the CN Centre will promote interdisciplinary research in occupational health and safety. This will involve the Department of Psychology, The Frank H. Sobey Faculty of Commerce, and the Division of Continuing Education.

Occupational health and safety research focuses on the protection and promotion of the safety, health, well-being and work-life quality of the workforce. Saint Mary's has the largest concentration of occupational health psychology researchers in the country. The researchers will collaboratively build on the already established research programs at the University in areas such as occupational stress, work and family conflict, occupational health and safety, and workplace violence.

Public and private sectors will benefit from educational, job training, assessment and program development opportunities provided by the CN Centre for Occupational Health and Safety.

Centre for Leadership Excellence

The newly created Centre for Leadership Excellence at Saint Mary's University is one of a kind in Atlantic Canada. With financial support from the Saint Mary's Strategic Initiative Funds and the Canadian Forces Leadership Institute, the Centre has been created to foster leadership research partnerships and deliver leadership assessment and development services.

In an increasingly uncertain economic environment characterized by rapid organizational change and restructuring, leadership is emerging as a critical determinant of organizational viability and success. Unfortunately, many individuals in leadership positions have not been trained in leadership, and more specifically, in styles of leadership that are appropriate for a rapidly changing environment. As a result, those individuals who are given the primary responsibility for ensuring that change takes place are all-too-often the very individuals who are most overwhelmed and least prepared for these new challenges. Successful organizations, both public and private, are now recognizing the need to re-invest in their leaders and in leadership.

Researchers at Saint Mary's University have been actively involved in the science and practice of leadership development for some time. Both as part of the formal course offerings of the University and individual collaborations with industry, Saint Mary's has accumulated a diverse array of expertise in areas relating to leadership development. Moreover, we have, both collectively and individually, established collaborative working arrangements with centres such as the Canadian Forces Leadership Institute as well as with individual academics and practitioners working in the field. Active research programs are already established in leadership theory including transformational leadership, the effects of leadership on individual well-being, techniques of leadership development, and remote leadership. Recognizing these strengths, the principals have come together to form a Centre for Leadership Excellence.

The Centre is building on the existing concentration in this emerging field and is positioning the University to take advantage of private and public interest in the area of leadership. In addition to collaborative partnerships within the university, very close ties have been established with the Canadian Forces Leadership Institute and have secured financial support for the centre from both the CFLI and the strategic initiatives fund. The Centre will allow for the development of curriculum-including post-graduate, graduate and undergraduate courses that will directly benefit current and potential students of the University. The development of an assessment centre capability and the capability to deliver a wide range of leadership development initiatives is also an important advantage to the Centre.

Purpose and Operation

The goals of the Centre for Leadership Excellence are to build on this foundation to:

- (a) co-ordinate and conduct basic and applied leadership research;
- (b) build capacity for leadership in Nova Scotia and the Atlantic Provinces;
- (c) co-ordinate and conduct activities related to the assessment and development of leadership potential;
- (d) provide assessments and leadership development to both private, public, and not-for-profit agencies on a contractual basis;
- (e) develop and deliver leadership training and development programs;
- (f) provide students with educational and consulting opportunities in the area of leadership;
- (g) be the Atlantic Provinces resource for information concerning best practices in the areas of leadership assessment and development;
- (h) work collaboratively with other centres at the University and across the country to further the aims expressed above; and
- (i) develop infrastructure to support the above activities.

In November 2003, GAMA International Canada, a professional association dedicated to leaders and managers involved in the distribution of financial services, and the Centre for Leadership Excellence at the Sobey School of Business, Saint Mary's University, announced the formation of a strategic partnership in providing the newly-created Chartered Management Professional (CMP) designation.

The CMP program applies academic and practical skill-building content in four key areas critical to successful leadership within the financial services industry: coaching and leadership; recruiting; selection and retention; training and education; and business development (including marketing, technology, and online testing as well as participate in four course offerings from GAMA-approved educational partners in classroom, teleconferencing, and onling formats. The capstone of the CMP program is a business planning module that incorporates accountable goals and objectives that each participant will be able to integrate into his or her daily role.

Saint Mary's Centre for Leadership Excellence is currently developing the four academic courses that form the core of the CMP program. The Chartered Management Professional program is the first designation program in Canada created exclusively for those working in leadership positions within the financial services industry. Further information is available from Dr. A. Miciak, Dean of Commerce, Sobey School of Business.

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 Atlantic Canada Studies program. The Institute is an interdisciplinary research centre concerned with social, economic, and cultural issues specific to Canada's Atlantic Region. The Institute offers research associate positions to visiting professors, post-doctoral fellows, and graduate students.

Objectives

The aims of the Gorsebrook Research Institute are to encourage and facilitate social, economic, cultural, and environment-related research pertaining to the Atlantic provinces; to act as an Atlantic Canada resource base and data centre for universities, governments, and the private sector; to facilitate university and other-sector research cooperation; to promote interdisciplinary and interuniversity cooperation, and to encourage university community outreach through collaborative research projects.

Resources

The Institute's resource centre includes regional data sets, audio-visual

materials, theses, Atlantic Canada bibliographies and relevant manuscripts, periodicals and articles, and is a distribution point for all Gorsebrook publications.

Research Activities

This past year has seen the establishment, under the auspices of the Canada Research Chair in Atlantic Canada Studies, of the **Centre for New Media Qualitative Research**. The Centre facilitates inter- and transdisciplinary qualitative research using traditional and new media. It provides a secure comfortable setting for collecting information from focus groups or individual interviews. It has the ability to generate high-quality audio and video records of those interviews, complete with transcripts. The facility serves as a training centre for students and researchers interested in building their qualitative research skill set, and offers learning and training opportunities for community partners.

The **Centre for the Study of Sport and Health** encourages interdisciplinary research on issues relating to sport, physical activity and healthful living; enhances communication between researchers, the sporting community and government; disseminates research on sport and health issues through conferences, symposia and public forums; and fosters interdisciplinary undergraduate and graduate degree programming relating to sport, health, and society.

The **Austin Willis Moving Images Centre** is a multimedia service facility and research centre focusing on the application of new technologies to education and scholarship. It is presently involved in documentary video production, and a history of the moving image in Nova Scotia.

Ongoing research initiatives include the **Labrador Project**, a collaborative effort involving the Institute, the Innu Nation of Labrador and the Department of the Environment. This project provides research input relating to environmental and educational issues, and is involved in helping the Innu Nation prepare for self-government. The Institute also acts as the national secretariat for a SSHRC Centres of Excellence project, the **Oceans Management Research Network**. The OMRN involves the Gorsebrook in partnership with Memorial University, University of Manitoba and Simon Fraser to create and share knowledge for the application of critical thinking and best practices to oceans management in Canada.

Additional activities include faculty seminars, workshops, public forums, and conferences. The Institute has published more than a dozen books over the past ten years, and has national and international links with various universities, institutes, publishers, and government departments. The Institute is located on the Saint Mary's campus, and can be reached at 902 420-5668; fax: 902 496-8135; or email: gorsebrook@smu.ca

Institute of Human Values

The supporters of the Institute believe that knowledge, morality, and freedom form an interdependent triad, and that the contemporary breakdown 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 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 divorce of personal morality 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 Institute is located in Room 308, Burke Building. Contact numbers are 902-420-5753; fax: 902-420-5181; and e-mail: john.mackinnon@smu.ca.

The Institute for Computational Astrophysics (ICA)

The Institute for Computational Astrophysics (ICA) was formally founded within the Department of Astronomy and Physics at Saint Mary's and became operational in December, 2001. The ICA is a unique entity on the Canadian academic landscape that exploits the synergy between high-speed computers and powerful computer algorithms for solving the complex equations governing many astrophysical phenomena.

Computational astrophysics addresses the most challenging questions posed by humanity. What are the conditions necessary for a life-bearing world such as the Earth to form? How do stars form? How do galaxies form? What is the fate of the Universe? More and more, the computer is becoming the laboratory for astrophysicists who, unlike their colleagues in

chemistry, physics, and biology, do not have the luxury of interacting with their sample. Modeling stars, galaxies, even the entire Universe on a computer is the closest an astrophysicist can come to experimenting with objects of astronomical interest, and is the only way to tackle the really big problems in astrophysics.

As part of Saint Mary's new vision for research and graduate studies, the ICA was allocated two of the University's Canada Research Chairs as well as a new regular faculty position, all filled by computational astrophysicists of world renown. The three new faculty have joined two existing computational astrophysicists to form a research cluster of five full-time faculty members whose interests span all astronomical scales; from the confines of the solar system, to the formation and evolution of stars, to the giant extragalactic radio jets, the largest known contiguous objects in the Universe. The activities of the permanent faculty will be complemented by post-doctoral fellows, Master's and Ph.D. students, and a steady flow of visitors and speakers. By 2006, it is anticipated that the ICA will house as many as 25 researchers at any given time on the campus of Saint Mary's University.

The ICA is located in the McNally Building, MM 311, and can be reached by phone at 902-420-5439; by fax at 902-496-8218; or by email: bdeupree@ap.stmarys.ca

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.

The role of the International Activities Office is to coordinate the international activities of the University, to serve as liaison with governments, non-governmental organizations and international agencies involved in overseas programming, and to 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.

The International Activities Office is responsible for managing international projects; 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 Office also assists in coordinating student exchange programs and international group programming.

The International Activities Office is located in The Oaks, 5920 Gorsebrook Avenue, and can be reached at 902-420-5177; fax: 902-420-5530; and e-mail: denis.leclaire@smu.ca or heidi.taylor@smu.ca.

The International Centre

The International Centre located on the third floor of the Student Centre houses the office of the International Student Advisor, the Program Officer; and provides a comfortable meeting space.

The staff at the International Centre provide support, assistance and advice to international students at Saint Mary's and strive to ensure that international students fully participate in university life. The Centre offers a range of services to students, including counselling, orientation,

information sessions, and cultural activities.

International Student Advisor: Alana Robb

Phone: 902-420-5436;

Program Officer: Ysaac Rodriguez

Phone: 902-491-8692;

e-mail: international.centre@smu.ca;

web site: <http://www.smu.ca/administration/international>

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, and various other instruments for chemical analyses. The Centre is located on the fifth floor of the Science Building at Saint Mary's University. Phone number: 902-420-5743; fax: 902-420-5261; e-mail: jarda.dostal@smu.ca.

Teaching English as a Second Language (TESL) Centre

ESL/EAP/EPPC/ESP Programs

The TESL Centre offers year-round language, cultural, and orientation programs for non-native speakers of English. These may consist of courses in general English as a Second Language (ESL), English for Academic Purposes (EAP), English for Personal and Professional Communication (EPPC), English for Specific Purposes (ESP), pre-MBA Language and Culture programs, small tutorial or seminar groups, tutors for individuals, or integrative social activities.

Special courses are also arranged on a contractual basis with individuals, universities, governments or businesses. These are designed to meet the specific needs of the second language students and may focus on the language used in specific disciplines or professions.

In addition to a language component, programs may include academic, social, and cultural components and provisions for either residence or homestay accommodation. Interaction with the surrounding English-speaking community is emphasized so that students will feel at home in their new environment.

ESL Teacher Training

The TESL Centre also offers a certificate course in Teaching English as a Second or Foreign Language to those who wish to gain knowledge and skills in the field of ESL or EFL. Students in this program gain practical experience working with students learning English in the TESL Centre.

The TESL Centre is located at 980 Tower Road and can be reached at 902-420-5691; fax: 902-420-5122; and email: tesl@smu.ca.

Writing Centre

The Writing Centre was established in 2003 with the mandate to promote and support the development of strong academic literacy by all Saint Mary's students. The Writing Centre also provides consultation and support to faculty, which includes regular workshops on developing writing curriculum and pedagogical methods.

The Centre is staffed by a Director (Ms. Pat Saunders); an Office Coordinator; and trained Writing Assistants who provide facilitative approaches to the writing process. Free, scheduled appointments offer

individualized aid to students directed at developing strong writing and critical reading and thinking strategies. Services are offered to all students, at any level of ability, and at any stage of their writing process. In addition, the Centre collaborates with other Saint Mary's services and academic units, and works with the community through outreach programs designed to promote literacy and communication skills.

The Centre is located in the Burke Building, Room 115, and can be reached at www.smu.ca/academic/writing-centre or by telephone: 902-491-6201.

Women's Centre

The aim of this Centre is to educate the University community about women's issues and feminism and to celebrate women through ongoing initiatives and special events. The Centre aims to provide material resources and service referrals to students, staff and guests of the University, a safe space for women and a space for women to organize on behalf of a variety of political and social causes. Further, the Saint Mary's Women's Centre aims to advocate with and on behalf of women on campus pertaining to a diversity of contemporary issues and challenges



Fall graduation students ascending the escalator to the Port Royal Room, World Trade Centre – 9 November 2003.

**Resources
and
Services**

Section

8

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 organizes many events throughout the year, including Homecoming/Alumni Weekend, Annual Alumni Dinner, Annual Golf Tournament, etc. The Association also supports a network of Branches and Chapters around the world, which host their own events for Saint Mary's alumni.

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. Fund raisers include: Exam Survival Packs for residence students; coat checks at the student pub The "Gorsebrook" and lollipop sales at varsity games; as well as various other activities both on campus and in the community.

The SMU Ambassadors help the community by canvassing for the Alzheimer's Society, Diabetes Society, Heart & Stroke Foundation, Cancer Society, Metro Food Bank, and attendance each year at the Kid's Help Phone Academy Awards Gala fund-raiser and on-site degree framing with the University Bookstore at each Convocation.

Annually, the Association awards the Dr. William 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. At each Convocation, special Alumni pins are presented to each graduating student.

The Alumni Office is located at 867 Robie Street. You can contact the Alumni Office by phoning 902-420-5420; fax: 902-420-5140; or e-mail: alumni@smu.ca.

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 competition, fitness, fun, recreation, and sportsmanship. 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 University Sport (AUS) and the Canadian Interuniversity Sport (CIS). 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, Cross Country, Football, Ice Hockey, Soccer, Track & Field.

Varsity (Women)

Basketball, Cross Country, Field Hockey, Ice Hockey, Rugby, Soccer, Track & Field, Volleyball.

Club (Men)

Baseball, Rugby.

Club (Women)

Dance Team.

Intramural (League)

Basketball*, Coed Basketball, Coed Soccer, Coed Softball, Coed Volleyball, Touch Football*, Hockey, Men's Soccer, Men's Softball, Volleyball*, and Ultimate Frisbee.

*men and women

Intramural (Tournament)

Badminton, Basketball, 3/3 Basketball, Coed Broomball, Golf, Squash.

Recreation (Unstructured)

Badminton, Basketball, Hockey, Jogging, Skating, Squash, Table Tennis, Tai Chi, Volleyball, Weight Training, Yoga.

Recreation (Instructional)

Boxing, BoxFit, Group Exercise Classes, Personal Training, Pilates, Running Clinics, Social Dance, Squash, Step Training, Tai Chi, Walking Clinics, Weight Training, Yoga, Fitness Instructor Certification.

On-Campus Facilities

The Tower

Alumni Arena

Huskies Stadium (artificial field and 400 meter track)

Saint Mary's Athletics and Recreation Tower was opened in June 1987. This centre houses a double-sided gymnasium with retractable seating, running track, squash courts, conditioning centre, peak performance weight room, group fitness room, sauna, whirlpool, steam room, offices, lounge, locker rooms, sports medicine clinic, and equipment distribution area.

Sport Hall of Fame and Heritage Centre

Saint Mary's University officially opened its Sport Hall of Fame and Heritage Centre in an inaugural ceremony on 14 October 1995.

This long awaited Centre has a permanent home on the 2nd floor of The Tower. As the Centre grows there will be many photographs and numerous articles of sports memorabilia. To realize their achievement of excellence and dedication to Saint Mary's, each year during Homecoming Weekend new athletes, builders, leaders and teams will be inducted in this Sport Hall of Fame.

Inductees:

1995 Reverend John J. Hennessey, S.J.
Robert G. Hayes

1996 1973 Men's Basketball Team
Bob Lahey
Reverend Michael O'Donnell, S.J.

1997 Frank Baldwin

1998	Bob Boucher Jim Pineo 1973 Football Team	2002	Frank Archambault Harold "Babe" Beazley Dianne Chiasson Michael Hornby
1999	Jamie Bone Elizabeth A. Chard Bob Warner 1964 Football Team	2003	Al Keith Dr. Greg McClare Larry Uteck 1978 Men's Basketball Team
2000	Roy Clements Mickey Fox Kathleen Mullane		
2001	Chris Flynn Elmer MacGillivray Angelo Santucci 1973 Hockey Team		

Please feel welcome to view the displays during The Tower's operation hours.

Bookstore

Situated on the second floor of the O'Donnell-Hennessey Student Centre, the Bookstore is owned and operated by Saint Mary's University. Our textbook specialists work year-round to provide course-related materials in this convenient location.

The Bookstore also carries supplies, crested clothing and giftware. Our website bookstore.smu.ca has more detailed information about how to find your course-material, operating hours, refund deadlines, as well as our web-catalogue for crested items.

Used Book Program - Choose our used copies to save at least 30%. Current titles re-adopted by instructors are purchased from students for half price during our Used Book Buy-Backs in December, April and August. They are then made available on our shelves at 25% off the new price, and are tax-free. Watch for our advertisements in *The Journal* and on campus posters.

Special Orders - Personal copies of any book in print can be ordered through the Bookstore.

Ring Days - Saint Mary's rings may be ordered at the Bookstore at the following times: Wednesdays 3:30-5:30 pm in February, March, April, October and November. Watch for campus posters for other special Ring Days during each semester.

Parchment/Diploma Framing - Customized frames are available year-round in two styles, each with crested mattes. Following Spring and Fall Convocations, an on-site framing service is provided jointly with the Alumni Office.

Operating Hours -

September to May:	Monday, Thursday, Friday	9:00-4:30
	Tuesday, Wednesday	9:00-6:00
June to August:	Monday to Friday	9:00-4:30
Extended Hours:	At the beginning of each semester see our web-site, flyer, and bookmarks.	

Christmas to New Year's - closed

Contact - Telephone 902-420-5562
(customer service, recorded information also available)
E-mail: bookstore@smu.ca

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; watercolorist and printmaker J. R. Leighton Davis.

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 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. The overall responsibility for the Art Gallery is that of the Vice President (Associate), External Affairs.

Information Technology Systems and Support

The computing environment consists of over 1,500 workstations (PCs, Macs, Unix) located in faculty, staff offices, in the general access labs and in departmental computer labs. A fibre optic backbone interconnects nine buildings. About 1,500 workstations are directly connected through ethernet to the high speed campus network. Computers on the campus

network include Windows, AppleShare file servers, and CD ROM servers. Off-campus locations, such as Saint Mary's at the World Trade Centre, are connected to the campus network. All campus network users have high speed access to the internet. Faculty, students and staff use the internet for a wide variety of applications. Students can review the *Academic Calendar*, apply for admission, add/drop courses, make payments on-line, and determine their exam schedule over the intranet. Electronic-mail is available for campus and internet usage.

The central computing environment includes over 30 systems running HP open VMS, Linux, Sun Solaris, Microsoft Windows, and IBM 50/400. Programming languages are available on Windows including: BASIC C, COBOL, FORTRAN, PASCAL, and JAVA. Workstations in computer labs use Microsoft Windows. Applications include: Maple, Minitab, SPSS, TK Solver, MatLab, MS Office, Visual Studio, and Internet Explorer, JBuilder, G S Viewer, and MSDN. Several survey data bases (Stats. Can.) are on-line.

There are ten general access computer labs and several departmental labs containing over 350 workstations. All micro labs have high speed access to Windows servers for file and printer sharing. Most general access labs are open 24 hours/day, 7 days per week, during the academic year. Lab security is enhanced by an extensive closed circuit TV security system and a 24 hour security desk. A wide range of software is available for statistics, graphics, charting and map drawing, CAD, financial and mathematical applications, word processing. Several types of printers are available including dot matrix and laser.

Easy, fast access to information technology has been incorporated into the entire campus with many network outlets in casual student areas. All buildings have current switch technology at the edge of the network and a high capacity central switch capable of moving data from classrooms, labs, offices to servers at high speeds. Most teaching classrooms have multi-media data presentation equipment, as well as high speed computer access for the instructors' workstations. The current "evergreen" desktop program ensures the PC desktop technology is no older than 3 years in any classroom or lab. This enables the faculty and students to learn on the most current technology possible.

Besides the typical computer hardware and software used for office applications, there is also a wide range of specialized computer systems to handle computer aided design, optical scanning, digitizing/imaging, multi-media, and desk-top publishing.

Information Technology Systems and Support (ITSS) manage the academic and administrative servers and systems, the general access computer labs, the campus network, the classroom media technology, the telecommunications systems, and the Help Desk. They provide installation and repair for most university owned computer equipment. All the main university administrative computer based systems are maintained by them. Tours of information technology facilities, and assistance in using the Alphas and the public access microcomputer labs are also available. The latter is in addition to the assistance available to students through their courses and labs. ITSS provides technical advice relating to the selection and purchase of computer hardware and software. Many 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. For further information, please contact ITSS at 902-420-5480; or e-mail FrontDesk@smu.ca.

Office of Instructional Development

In October, 1998, Saint Mary's University established the Office of Instructional Development. The main objective of this Office is the support of teaching and learning both on and off campus. The Office facilitates the on-going work of the Quality of Teaching Committee and is a repository for the Committee's collection of instructional materials. It

links the University and its instructors with programs and experts on teaching and learning throughout the province, in Canada and internationally. Through workshops, newsletters, mentoring and access to experts and expertise, the Office provides opportunities for professional development in teaching to full and part time faculty.

Patrick Power Library

The Patrick Power Library houses over 390,000 volumes. As well as books and journals, the collection includes electronic indexes, full-text databases, corporate annual reports, microforms, Canadian Government documents, the Ferguson Library (audio and electronic texts for print handicapped students), rare books, special collections, and Saint Mary's University Archives. As a member of the Novanet Library Consortium, the Patrick Power Library enables students to access the combined holdings (over two million items) of most universities and colleges throughout Nova Scotia. The Novanet Express service provides books and photocopies from any Novanet library within three working days.

Students will find quiet study space and helpful, knowledgeable staff who are eager to help students get the most of our extensive resources and services. Reference services are available more than 90 hours each week during each semester. An extensive library research instruction program provides classroom and individual instruction for students to learn to use both traditional and electronic information resources. Many of our electronic resources are accessible through the campus-wide network, and are thus available virtually around the clock.

For more information on library collections, services and hours, please call (902) 420-5544, or visit us on the web at <http://www.smu.ca/administration/library>.

Observatory

The Rev. Michael W. Burke-Gaffney Observatory at Saint Mary's University was opened in 1972. It is named for the late Professor Emeritus, Rev. Michael W. Burke-Gaffney, S.J., astronomer, engineer, and educator, who was at Saint Mary's University from 1940 until his death in 1979.

The revolving aluminium 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, among the most powerful in Eastern Canada, is used primarily for student instruction. The telescope is controlled by a computer located in the adjoining observer's office. A second computer operates an electronic camera capable of recording stellar spectra, or images of star clusters and galaxies. You can learn more about the Observatory by contacting its Web site at <http://apwww.smu.ca>.

The Observatory is open to the general public for viewing sessions on the first and third Saturday evening of every month, weather permitting. Further information is available from the Department of Astronomy and Physics, or by telephoning 902-496-8257.

Student Services

At Saint Mary's University the Department of Student Services includes the Office of the Director, Chaplaincy, Counselling Services, Atlantic Centre of Support for Students with Disabilities, Financial Aid Counselling, Health Services, Student Employment Centre, University Residences and Food Services, International Student Advising, and Child Care Services. Student Services provides a wide range of services and programs that support student development.

Chaplaincy

Because of its traditional commitment to Christian education, Saint Mary's University continues to emphasize personal and social values derived 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 Loyola Chapel. In addition, a special University Mass is held every Sunday in Canadian Martyrs' Church located on the edge of campus. Other faith services are available in nearby churches, synagogues, and mosques.

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 issues. Both male and female counsellors work with students to help them feel better about themselves and develop healthy ways of achieving their goals.

Educational Counselling

Educational counselling is useful for students on academic probation or those who need advanced study skills education.

Career Counselling. Students are seen individually and in groups for assistance with career planning, choosing an education direction and increasing their occupational knowledge. Self-assessment exercises include: COPS, COPES, Strong Interest Inventory, and Myers-Briggs Type Indicator; and career cruising.

Volunteer Opportunities:

SMU DRAFT (Drink Responsibly and Feel Terrific) Team (5th Floor, Students Centre: 496-8226 or draft.team@smu.ca). Volunteers promote a responsible alcohol use message on campus through educational sessions and social activities.

Saint Mary's University Student Peers (SMUSP)

The student peers are trained volunteers working in the SMUSP Office (4th Floor, Student Centre). Volunteers provide all students with information on study skills, career resources, campus services and student services programs. Interested students should drop by the SMUSP Office during office hours or call 496-8245 or e-mail: student.peers@smu.ca.

Sexual Harassment/Sexual Assault

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/sexual assault 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. In 1995, Senate revamped this policy to include Sexual Assault.

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 to 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.

Atlantic Centre of Support for Students with Disabilities

The Atlantic Centre, located on the third floor of the O'Donnell-Hennessey Building, assists in transforming the campus into an environment that is accessible to all students. Services through the Atlantic Centre consist of a variety of supports and facilities designed to enhance the educational experience for students with disabilities attending Saint Mary's.

The Atlantic Centre staff are qualified to provide counselling services to students with disabilities ranging from personal to academically related issues. They are also available to faculty members for advice and intervention on behalf of faculty or students.

A variety of reading enhancement and other technologies along with a knowledgeable staff enable students with motor impairments, Learning Disabilities and Sensory deficits to gain access to academically related materials that most students take for granted.

Visual Language Interpreting and the use of augmentative technologies offer a Total Communications approach for those students who are Deaf or Hard-of-Hearing.

The LIBERATED LEARNING PROJECT is a revolutionary approach in the use of Speech Recognition. This world first initiative uses Speech Recognition in the classroom for real-time display of text and follow-up production of detailed and accurate class notes for those students who, for physical or sensory reasons, cannot take notes for themselves. Further information on the LIBERATED LEARNING PROJECT is available on the web at: www.liberatedlearning.com.

Traditional Note Taking with No Carbon Required paper is also provided by a dedicated group of student volunteers who are administered through the Atlantic Centre.

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.

Please visit us on the web at: www.stmarys.ca/administration/student_services/atlcentr/atlantic.html. Alternatively, you may call us at (902) 420-5452 (Voice)/(902) 425-1257 (TTY).

Financial Aid Office

Please refer to Section 6 of this *Academic Calendar* for further details on the following services offered through the Financial Aid Office.

- **Scholarships and Bursaries**
- **Provincial Government Student Aid Programs**

- **Budget Counselling**
- **International Students**
(cost of education letters)

Student Health Services

Student Health Services is located on the 4th floor of the Student Centre and is a scent-free clinic. It provides students with the same service they would receive from their family doctor. Referrals to specialists may be made through the clinic. Bloodwork is done by the nurse by appointment (496-8778).

Office hours are 9 a.m. to 12 noon and 1:00 to 5:00 p.m., Monday through Friday. Details on when the doctors are available in the clinic are available on request. After 6:00 p.m., the nurse can be reached by cell phone (471-8129) as well as all weekend for medical problems or information. For a medical emergency, please go directly to the Halifax Emergency Department at the QEII, 1796 Summer Street. Confidentiality is guaranteed.

Medical Insurance

Each year the Students' Association and the Health Plan Committee decide which insurance company will carry the Student Health Plan. The Students' Association administers the plan through the Student Health Plan Office (Room 524 – 5th floor Student Centre).

Students with comparable coverage may opt out of the plan by signing a medical waiver and providing proof of their own coverage. The deadline to complete a waiver is September 30, for first semester enrolments and January 31st for second semester enrolments. Waiver forms are available at the Health Plan Office.

1. Full-Time Canadian Students and Non-Canadian Students

An extended health care plan arranged by the Students' Association, in consultation with the Health Plan Committee, is compulsory for all full-time Canadian students (3 or more courses), and all full and part time registered Non-Canadian students.

a.) Full-Time Canadian Students

Full-time Canadian students should have coverage by, or have access to, provincial hospital and medical care. It is the responsibility of the student to ensure that he or she is in good standing with his and her provincial health care system. For premium amounts, see Section 6 of this *Calendar*.

i) Graduate, Thesis, and Co-op Students

Graduate, thesis, and co-op students taking less than 3 courses who would otherwise be considered full time students must request medical coverage if they require it. They will only be eligible for coverage if they were covered by the Students' Association plan in the previous year. To request coverage, these students must visit the Health Plan Office (Room 524 Student Centre) and complete an opt-in form by October 15.

b.) Non-Canadian Students

The Student Health Plan coverage for Non-Canadian students consists of two parts:

Provincial health care coverage (e.g. hospital) and,
Supplemental coverage (e.g. prescription drugs and physiotherapy).

Students not covered by provincial health care will be insured under the Student Health Plan's comprehensive health and hospital coverage. If Non-Canadian students have provincial health insurance (such as MSI) they may waive that portion of the health plan by October 31 by visiting the Health Plan Office (Room 524 Student Centre) and completing a waiver form.

Non-Canadian students who waive the provincial health care portion will still be covered under the supplemental portion of the health plan unless they have waived that portion as well.

For premium amounts, see Section 6 of this *Calendar*.

For information on how to be eligible for Nova Scotia provincial health care (MSI) please call MSI at 902-468-9700.

c.) Family Coverage

Students covered by the Students' Association health plan may add their spouse and eligible dependents to the health plan by completing an addition of family form. These forms are available at the Student Health Plan Office (Room 524 Student Centre) and must be completed by September 30. Eligible January enrolments must complete this form by January 31.

For premium amounts see the Financial Information section of this calendar.

2. Part-Time Canadian Students

Part-time Canadian students are not eligible for Students' Association Health Plan coverage.

For additional information on medical premiums, benefits, waivers, opt-ins, claims processing, family coverage and general inquiries please contact the SMUSA (Students Association) Student Health Plan Office (Room 524 Student Centre).

Tel: (902) 496 8754 - Email: healthplan.smusa@stmarys.ca

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 coed 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. All rooms are wired for high speed internet, cable, and telephones.

Family/Graduate 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.

There are also Senior Suites which are designed for students in their senior year who want the convenience of living on campus with more privacy. These suites feature private, lockable single bedrooms in an apartment-like unit with a self-contained bathroom and kitchenette. They include the latest technological upgrades. 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, Easy Go, Convenience Store, and two Tim Horton outlets.

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 International Student Advisor (ISA) provides information and referral services in response to questions or problems international students may encounter during their adjustment to a new country and university. The ISA organizes orientations and social programs for international students. International students with questions, financial concerns, or immigration problems are encouraged to meet with the ISA. The ISA Office is located in the International Centre, Burke Building, and students are encouraged to drop in or call 420-5436.

Day Care Service

The University has a day care service on campus which accommodates 36 children. A limited number of subsidized spaces are available to qualified applicants. Children must be at least 18 months of age to be admitted. For more information, contact the Director of Child Care Services at 902-425-8263.

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. The Saint Mary's University's Discipline Code was officially passed by the Academic Senate on 22 September 1995. Copies can be requested from 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. Authority of the President of the University

In addition, the Saint Mary's University Act empowers the President of the University to deal directly with matters relating to student discipline. The President reserves the right to deal with academic and non-academic offences on an ad hoc basis and to determine the appropriate process in each case.

d. Students and parents (or guardians) of students are advised that Saint Mary's University does not agree to accept custody, guardianship or responsibility for any student, whether under the age of 19 or otherwise. The University is not responsible for acts or omissions of any student.

University Security

The maintenance of order, conduct, and safety on campus is the responsibility of University Security. Under the supervision of the Manager, University Security, this department includes full-time security officers, a contracted force of Canadian Corps of Commissionaires and Campus Security (student component) composed of full-time Saint Mary's University students. As well, in partnership with Saint Mary's University's Students Association, a drive home service, the Husky Patrol, is provided to the University Community. Interested students may apply for a position with University Security by forwarding a resume to the office of the Manager, University Security.

The student component of University Security provides students with an opportunity to obtain valuable experience in the field of security and people management skills, as well as providing funds to defray their education costs.

The Manager, University Security, can be contacted at 902-420-5578; by fax: 902-420-5115; or by e-mail: bpromaine@smu.ca.

Saint Mary's University Students Association, Inc.

Incorporated in 1966, the Saint Mary's Students Association (SMUSA) is the official representative organization of the students of Saint Mary's University. All registered full and part-time students, paying student fees, are members of this organization.

The goal of the Association is to promote and represent the interests of its membership. Through its services, representation, and advocacy, SMUSA works with the University on academic issues, lobbies government through its affiliation with provincial and federal organizations, and ensures the coordination of artistic, literary, educational, social, and recreational activities intending to promote the highest quality of life for Saint Mary's students.

The Association is governed by a 17 member Students' Representative Council, which includes 5 executive members (President, VP Internal Affairs, VP Academic, VP External Affairs, and VP Finance) and 12 councilors elected by the student body. Through its various service departments, SMUSA also employs over 90 student staff. All students are encouraged to get involved by running for Council, seeking employment, or volunteering in the many other capacities of SMUSA.

Although SMUSA is the official representative body of the students of Saint Mary's University, there are also many clubs and societies and other organizations students can get involved with that are funded and/or governed by the Association.

In addition to involvement opportunities, SMUSA also offers many services that students can take advantage of. We operate the Gorsebrook Lounge and liquor services; the Information Desk; our Husky Patrol safe drive program; the Marketing and Advertising department; we produce the *Yearbook* and we also coordinate Orientation Week and Winter Carnival activities along with other programmed events throughout the year. One of SMUSA's most significant events is the annual Charter Day Awards Night which honours and recognizes those students, student groups, and through the new SMUSA, Inc. Excellence in Teaching Award, members of faculty who have made outstanding contributions to student life throughout the year.

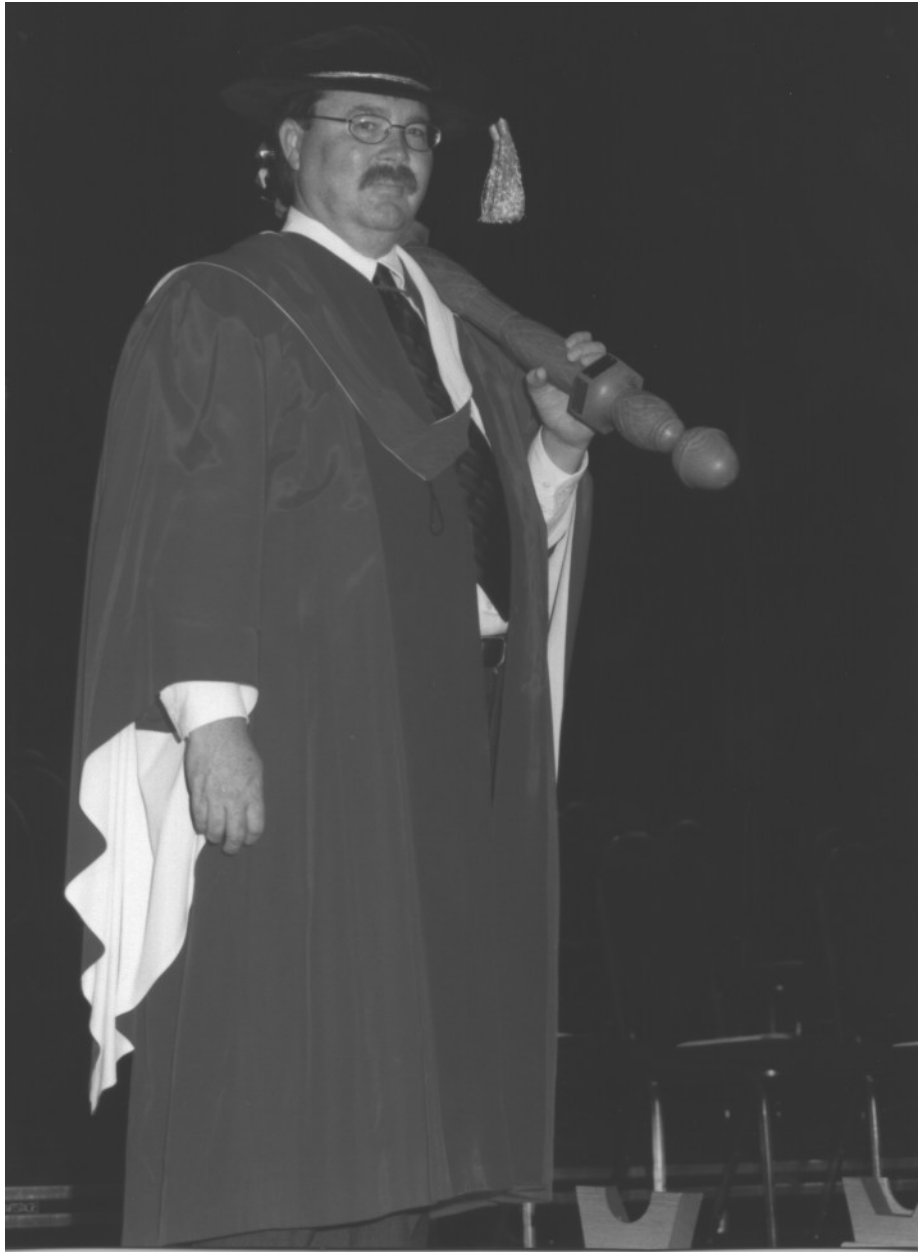
SMUSA places a strong emphasis on ensuring the academic success of its members. In mid-November, a day of advising known as the **ACADEMIC FAIR** brings together as many as possible of the University's services which seek to aid students in making wise and prudent decisions relating to their educational and career ambitions. This event is free and open to all students who would prefer to talk to a real person rather than read their departmental "FAQ's".

For more information, please visit SMUSA's offices located on the 5th floor of the Student Centre; contact SMUSA by phone at (902) 496-8700; or visit our website at www.smusa.ca.

**Academic Officers and Faculty
Chancellors, President, Deans
Professors, and Athletic Director Emeritus/Emerita
Awards to Faculty
Administrative Officers**

Section

9



Marshall of Convocation, Dr. Donald J. Naulls, Chairperson of Senate and Associate Professor of Political Science, with the University's Mace (see page 10).

Academic Officers and Faculty

Academic Officers

Vice-President, Academic and Research

Murphy, Terrence, B.A. (Saint Mary's), M.A. (Fordham), Ph.D. (Newcastle-Upon-Tyne), Professor of Religious Studies

Faculty of Arts

Enns, Esther E., B.S.L. (with high distinction) (Laurentian), M.A. (McMaster), M. Ed., Ph.D. (Toronto), Professor German

Naulls, Donald J., B.A. (Hons.), M.A. (Wilfrid Laurier), Ph.D. (York), Associate Dean and Associate Professor of Political Science

Faculty of Commerce

Dixon, Paul S., B.A. (New Brunswick), M.Math., Ph.D. (Waterloo), Dean and Associate Professor of Finance and Management Science

Van Esch, Linda, B.Sc. (Hons.) (Calgary), M.A., Ph.D. (York), Associate Dean and Professor of Marketing

Faculty of Science

Richardson, David H. S., B.Sc., M.Sc. (Nottingham), M.A., Sc.D. (Trinity College, Dublin), D.Phil. (Oxford), Dean and Professor of Biology

Faculty of Education

Enns, Esther E., B.S.L. (with high distinction) (Laurentian), M.A. (McMaster), M. Ed., Ph.D. (Toronto), Acting Dean and Professor of German

Faculty of Graduate Studies and Research

Jones, William, B.Sc., M.Sc. (Mount Allison), Ph.D. (McGill), F.C.I.C., C. Chemistry, Acting Dean and Adjunct Professor of Chemistry

Faculty

Abdul-Masih, Marguerite, B.A. (Bryn Mawr College), M.A., Ph.D. (Johns Hopkins University), M.Div. (Saint Michael's College, Toronto), S.T.L. (Regis College, Toronto), Ph.D. (Saint Michael's College/Regis College, Toronto), Associate Professor of Religious Studies

Agbeti, Micahel, B.Sc. (Hons.) (Ghana), M.Sc. (Brock), Ph.D. (Queens), Adjunct Professor of Biology

Akbari, Ather H., B.Sc., M.B.A. (Karachi), M.A., Ph.D. (Simon Fraser), Associate 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), Associate Professor of Finance and Management Science

Amirkhalkhali, Saleh S., B.A. (Shiraz), M.A., Ph.D. (Dalhousie), Professor and Chairperson of the Department of Economics

Anderson, Gail, B.Sc. (Manchester), M.P.M., Ph.D. (Simon Fraser), Adjunct Professor of Biology

Ansell, Robert N., B.A. (Cambridge), Ph.D. (Glasgow), Assistant Professor of Philosophy

Anderson, Bruce, B.Sc. (Hons.) (Dalhousie), B.A. (Distinction) (Mount Saint Vincent), M.A. (Harvard), LL.B. (Dalhousie), Ph.D. (Edinburgh), Associate Professor of Accounting

Ansong, Granville, B.A. (Hons.) (Ghana), M.A. (Queen's), M.Acc. (Waterloo), Ph.D. (Queen's), Assistant Professor of Accounting

Arya, Pyare L., B.A., M.A., Ph.D. (Delhi), Professor of Economics

Asp, Elissa, B.A., M.A., Ph.D. (York), Associate Professor and Chairperson of the Department of English

Attig, Najah, B.A. (I.H.E.C.), M.B.A., Ph.D. (Laval), Assistant Professor of Finance and Management Science

Badawi, Jamal A., B.Comm. (Ain-Shams), M.B.A., Ph.D. (Indiana), Professor of Management

Baker, Janet, B.A., M.A. (Queen's), Ph.D. (Dalhousie), Associate Professor of English

Barber, Colleen A., B.Sc. (Guelph), M.Sc. (Manitoba), Ph.D. (Queen's), Assistant Professor of Biology

Barrett, L. Gene, B.A. (King's College), M.A. (Dalhousie), D.Phil. (Sussex), Professor of Sociology and Criminology

Bartlett, Brian, B.A. (New Brunswick), M.A. (Concordia), Ph.D. (Montreal), Associate Professor of English

Bateman, David H., B.B.A. (New Brunswick), M.B.A. (Dalhousie), C.A., Associate Professor of Accounting

Beaulé, Sophie, B.A., M.A., Ph.D. (McGill), Assistant Professor of French

Beaupré, Charles P., B.A., M.A., Ph.D. (McGill), Assistant Professor of Japanese and Chinese

Bell, Sandra J., B.A., M.A. (Western Ontario), Ph.D. (Toronto), Associate Professor of Sociology and Criminology; Graduate Co-ordinator of Criminology

Bennett, Philip, B.Sc. (Simon Fraser), M.Sc., Ph.D. (British Columbia), Adjunct Professor of Astronomy and Physics

Bernard, Paul R., B.A. (Providence College), M.A.T. (Assumption College), Ph.D. (Pennsylvania State), Associate Professor of French and Chairperson, Department of Modern Languages and Classics

Bjornson, Susan, B.Sc. (Hons.) (Guelph), Ph.D. (Alberta), Assistant Professor of Biology

Boabang, Francis, B.A., M.Sc. (Ghana), M.A. (Saskatchewan), Ph.D. (Simon Fraser), Associate Professor of Finance and Management Science; Co-ordinator of Master of Finance Program

Bowlby, Paul W. R., B.A., M.A., Ph.D. (McMaster), Professor and Chairperson of the Department of Religious Studies

Boyle, W. Peter, B.Sc., Ph.D. (Queen's, Belfast), Professor of Engineering

Broders, Hugh, B.Sc. (Hons.) (Acadia), M.Sc. (Memorial University of Newfoundland), Ph.D. (New Brunswick), Assistant Professor of Biology

Butler, Malcolm N., B.Sc. (Hons.) (McMaster), Ph.D. (California Institute of Technology), Professor of Astronomy and Physics and Chairperson, Department of Astronomy and Physics

Byers, Michele, B.F.A. (Concordia), B.S.W., M.S.W. (McGill), Ph.D. (Toronto) Assistant Professor of Sociology

Byrne, Cyril J., O.C., B.A. (St. Dunstan's), M.A. (National University of Ireland), M.A. (Oxford), Ph.D. (Toronto), Professor of English and Program Coordinator of the Irish Studies Program

Cameron, James E., B.A. (Queens), M.A., Ph.D. (York), Assistant Professor of Psychology

Catano, Victor M., B.S. (Drexel), M.S., Ph.D. (Lehigh), Professor and Chairperson of the Department of Psychology

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Spiteri, Ray, B.Sc. (Hons.) (Western Ontario), Ph.D. (British Columbia), Adjunct Professor of Mathematics and Computing Science

Stanivukovic, Goran V., B.A. (Novi Sad), M.A., Ph.D. (Belgrade), Associate Professor of English

Stinson, Veronica, B.A., M.S., Ph.D. (Florida International University), Associate Professor of Psychology

Street, Philip A., B.A. (Windsor), M.A., Ph.D. (York), Associate Professor of Psychology

Stretton, Timothy, B.A. (Hon.), LL.B. (Adelaide), Ph.D. (Cambridge), Associate Professor of History

Strongman, Douglas, B.Sc. (New Brunswick), M.Sc. (Victoria), Ph.D. (New Brunswick), Professor and Chairperson of the Department of Biology; Co-ordinator of the Forensic Science Program

Summers, Russel J., B.A. (British Columbia), M.A., Ph.D. (Waterloo), Associate Professor of Management

Sun, Genlou, B.Sc. (Anhui Laodong University), M.Sc., Ph.D. (Sichuan Agricultural University), Associate Professor of Biology

Swingler, David N., B.Eng., Ph.D. (Sheffield), Professor

Taheri, Javid, B.Sc. (Pahlavi), M.A. (York), Ph.D. (Dalhousie), Associate Professor of Economics

Tarnawski, V., M.Sc., Ph.D. (University of Technology, Poland), P.G.S. (University of Technology, Finland), Professor of Engineering

Tastsoglou, Evangelia, LL.B. (National University of Athens, Greece), Ph.D. (Boston University), Associate Professor of Sociology

Thomas, Geraldine T., B.A., B.Ed., M.A., Ph.D. (Dalhousie), Associate Professor of Classics

Thomas, Gillian M. V., B.A., M.A. (Sussex), Ph.D. (London), Professor of English and Coordinator, Women's Studies (Undergraduate Program)

Tobin, Vincent McB., B.A., M.A. (Dalhousie), M.Div. (Atlantic School of Theology), D.E.A., Ph.D. (Hebrew University of Jerusalem), Professor of Classics

Tugwell, Maurice, B.Sc. (Hons.) (Mt. Allison), M.Sc., Ph.D. (Queen's), Adjunct Professor, Executive Master of Business Administration Program

Tulloch, Shelley, B.A. (Trent), Lecturer in Anthropology

Turner, David G., B.Sc. (Waterloo), M.Sc., Ph.D. (Western Ontario), Professor of Astronomy and Physics

Twohig, Peter L., B.A., M.A. (Saint Mary's), Ph.D. (Dalhousie), Associate Professor and Tier II Canada Research Chair in the Atlantic Canada Studies Program

Twomey, Richard J., B.A. (Eastern Connecticut), M.A., Ph.D. (Northern Illinois), Professor of History

Van Dyer, David, B.Eng., M.Eng., Ph.D. (Nova Scotia Technical College), Associate Professor of Engineering

Van Esch, Linda, B.Sc. (Hons.) (Calgary), M.A., Ph.D. (York), Associate Professor of Marketing and Associate Dean of Commerce

Vance, Michael, B.A. (Hons.) (Simon Fraser), M.A. (York, U.K.), M.A. (McMaster), Ph.D. (Guelph), Associate Professor and Chairperson of the Department of History

VanderPlaat, Madine, B.A. (Hons.), M.A., Ph.D. (Dalhousie), Associate Professor and Chairperson of the Department of Sociology and Criminology; Co-ordinator of Criminology

van Proosdij, Danika, B.Sc. (Hons.), M.Sc. (Guelph), Assistant Professor of Geography

Vasseur, Liette, B.Sc. (Sherbrooke), M.Sc. (Québec), Ph.D. (Queen's), Adjunct Professor of Biology

Vaughan, Keith, B.Sc. (Manchester), Ph.D. (St. Andrew's), C.Chem., F.R.S.C. (UK), Professor of Chemistry

Veltmeyer, Henry, Licenciatura (linguistics), B.A. (Catholic University of Guayaquil), M.A. (Alabama), Ph.D. (McMaster), Professor of Sociology

Venkat, Ramesh, B.Comm., M.B.A. (Madurai-Kamaraj), M.B.A. (Simon Fraser), Ph.D. (British Columbia), Associate Professor of Marketing and Director of Master of Business Administration Program

Vulcano, Brent, B.A., M.A., Ph.D. (Manitoba), Associate Professor of Psychology

Wagar, Terry H., B.A. (Queens), B.Comm. (Windsor), LL.B. (Ottawa), M.B.A. (Toronto), M.I.R. (Queen's), Ph.D. (Virginia Technic), Professor of Management

Walter, M. Susan, B.A., M.A., Phil.M. (Toronto), Associate Professor of Anthropology

Wang, Muhong, B.A.Sc. (Xian Jiaotong), M.A.Sc. (Xian Jiaotong), Ph.D. (Waterloo), Associate Professor of Finance and Management Science

Warner, Lyndan, B.A. (Hons.) (McGill), Ph.D. (Cambridge), Assistant Professor of History

Wein, Sheldon, B.A., M.A., Ph.D. (Waterloo), Professor of Philosophy

Welch, Gary A., B.S. (Harvey Mudd College), M.S., Ph.D. (Washington), Professor of Astronomy and Physics

Whalen, Thomas E., B.A. (California), M.A. (British Columbia), Ph.D. (Dalhousie), Adjunct Professor of Finance and Management Science

White, Michael J., B.Sc. (Hons.) (McMaster), Ph.D. (British Columbia), Associate Professor of Biology

Wicks, David, B.Comm. (Carleton), M.B.A., Ph.D. (York), Associate Professor of Management

Wilson, Clarke, B.A., M.P.I. (Queens), Ph.D. (Cambridge), Adjunct Professor of Economics

Ye, L. George, B.Sc. (Peking), M.Eng. (Beijing), M.A. (York), Ph.D. (Queen's), Assistant Professor of Finance and Management Science

Young, Nicola, B.Comm., M.B.A. (Dalhousie), F.C.A., Professor of Accounting

Zelenietz, Martin C., B.A. (Northeastern Illinois), M.A. (Manitoba), Ph.D. (McMaster), Adjunct Professor of Anthropology



President J. Colin Dodds and his “team” in a tug-of-war contest on campus.

Chancellors, President, Deans, Professors, and Athletic Director Emeriti/Emeritae

Beis, Richard H., B.A. (Western Ontario), M.A., Ph.D. (Notre Dame), Professor Emeritus of Philosophy

Bridgeo, William A., B.Sc. (St. Francis Xavier), Ph.D. (Ottawa), Dean Emeritus of Science

Burke, Archbishop Austin E., B.A. (Ste. Anne), M.T.L. (Holy Heart), D.D. (Hons.), D.Litt. (Hons.) (Ste. Anne), Chancellor Emeritus

Carrigan, D. Owen, B.A. (St. Francis Xavier), M.A. (Boston), Ph.D. (Maine), Professor Emeritus of History

Chadwick-Jones, John, B.A., M.A. (Oxford), Ph.D., D.Sc. (Wales), F.A.P.A., F.B.Ps.S., Professor Emeritus of Psychology

Connelly, Patricia, B.A. (Saint Mary's), Dip. Ed., M.A. (Dalhousie), Ph.D. (Toronto), Professor Emeritus of Sociology

Day, E. E. Douglas, B.A., Dip. Ed. (Leicester), Ph.D. (Sheffield), Professor Emeritus of Geography

Dougherty, Frank P., B.Comm. (Sir George Williams), M.Sc. (Clarkson College of Technology), Ph.D. (Pennsylvania State), C.A., Professor Emeritus of Accounting

Hayes, Archbishop Emeritus James M., B.A. (Saint Mary's), D.C.L., Hon.D.D., Hon.D.D., Hon.D.Hum.L., Hon.LL.D., Hon.D.Litt., Hon.D.Litt., Chancellor Emeritus

Hayes, Robert G., B.A. (Saint Mary's), Athletic Director Emeritus

Kapoor, Brij M., B.Sc., M.Sc., Ph.D. (Delhi), Professor Emeritus of Biology

Lonc, William, S.J., B.Sc. (Sir George Williams), Ph.L., Ph.D. (St. Louis), Professor Emeritus of Astronomy/Physics

MacCormack, John R., B.A., M.A. (Dalhousie), Ph.D. (Toronto), Professor Emeritus of History

McBride, Edward J., B.S. (LeMoyne), M.A. (Catholic University of America), Professor Emeritus of Political Science

Monahan, Arthur P., B.A., M.A., Ph.D. (Toronto), L.M.S. (Pontifical Institute of Medieval Studies, Toronto), Professor Emeritus of Philosophy

Murphy, James W., S.J., B.A. (St. Joseph's), M.A., Ph.D. (Toronto), Professor Emeritus of Chemistry

Ozmon, Kenneth L., B.A. (St. Bernard College), M.A. (Catholic University of America), Ph.D. (Maine), Hon. LL.D. (Saint Thomas), President Emeritu

Ralston, Helen, R.S.C.J., Dip. Soc. Studs. (Sydney), B.A. (Newton College), M.A. (Boston College), Ph.D. (Carleton), Professor Emerita of Sociology

Rojo, Alfonso, B.Sc. (Valladolid), M.Sc., D.Sc. (Madrid), Professor Emeritus of Biology

Schwind, Hermann F., B.B.A., M.B.A. (Washington), Ph.D. (British Columbia), Professor Emeritus of Management

Stewart, William A., S.J., B.A. (Montreal), S.T.L., Ph.L. (Immaculate Conception), Hon.D.D. (Regis), Hon.D.Litt. (Saint Mary's), Professor Emeritus of Philosophy

Stiegman, Emero S., B.A. (Don Bosco College), S.T.L. (Salesion Pontifical), Ph.D. (Fordham), Professor Emeritus of Religious Studies

Tudor, Kathleen R., B.A. (Sir George Williams), M.A. (Montreal), Ph.D. (Toronto), Professor Emeritus of English

Williamson, Douglas H., B.Sc., Ph.D. (Aberdeen), Dean Emeritus of Science

Young, John C. O'C., B.Sc., Ph.D. (London), M.B.A. (New York), Professor Emeritus of Chemistry

Awards to Faculty

Annually there are two prestigious awards presented to members of faculty.

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

In 1983, the Alumni Association, in cooperation with 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 Spring Convocation together with a cheque for \$1,500. 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 Edward 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)
 1994 Dr. Cyril Byrne (English)
 1995 Professor Nicola Young (Accounting)
 1996 Dr. Ronald Landes (Political Science)
 1997 Dr. Paul Muir (Mathematics and Computing Science)
 1998 Dr. David Cone (Biology)
 1999 Dr. Robert Singer (Chemistry)
 2000 Dr. Eric Lee (Finance and Management Science)
 2001 Dr. Janet Gregory (Finance and Management Science)
 2002 Dr. Gillian Thomas (English)
 2003 Dr. Janet Hill (English)

b. 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 rigorous nomination procedure has been delineated whereby each Dean of a Faculty may select one member of his/her Faculty who has been nominated by a faculty research, 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 Research Committee of the Faculty of Graduate Studies and Research, 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 Fall Convocation together with a cheque for \$1,500. 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)
 1994 Dr. Michael Zaworotko (Chemistry)
 1995 Dr. John Young (Chemistry)
 1996 Dr. Terry Wagar (Management)
 1997 Dr. David Turner (Astronomy)
 1998 Dr. Colin Howell (History/Atlantic Canada Studies)
 1999 Dr. Georgia Pe-Piper (Geology)
 2000 Dr. Henry Veltmeyer (Sociology)
 2001 Dr. Bert Hartnell (Mathematics and Computing Science)
 2002 Dr. Andrew Harvey (Economics)
 2003 Dr. Stephen Davis (Anthropology)

Administrative Officers

President

Dodds, J. Colin, B.A. (Open University), B.Sc. (Hull), M.A., Ph.D. (Sheffield), President and Professor of Finance and Management Science

President's Office

Babcock, Stephanie, B.A. (Acadia), B.S.A. (Saint Francis Xavier), Executive Assistant

Ramsay, Bonita, Secretary to the President

Vice-President (Administration)

Morrison, Gabrielle, B.Sc. (Dalhousie), B.E. (Technical University of Nova Scotia), P.Eng.

Vice President (Finance)

Corrigan, Lawrence T., Dip. P.A., B.Comm. (Dalhousie), M.B.A. (Saint Mary's), Dip. in App. Bus. (Ryerson), C.G.A., F.C.G.A.

Vice President (Associate) (External Affairs)

Bridges, Charles R. (Chuck), M.B.A. (Saint Mary's)

Admissions Office

Ferguson, Greg C., B.Comm. (Saint Mary's), Director
Dunn, James, B.Sc. (Saint Mary's), Assistant Director

Alumni

Cleary, Shawn, B.Comm. (Western Ontario), MBA (Saint Mary's), Director

Athletics and Recreation

Murphy, David J., B.A. (Saint Mary's), D.D.S. (Dalhousie), Cert. in Oral Surgery (Bellevue Hospital, N.Y.), FRCD (c), F.I.C.O.I., Director
Clements, Dana, B.B.A. (Ryerson), Coordinator of Marketing and Sales
Forbes, Lori, B.S.A. (Acadia), Sports Information Officer
Jamieson, Sandra, B.R., Coordinator of Programming

Jeffrey, Jill, B.P.E., B.Ed. (New Brunswick), M.Ed. (Saint Mary's), Head Coach, Women's Basketball

Mullane, Kathleen, B.P.E. (Dalhousie), M.B.A. (Saint Mary's), Manager of Facilities and Programming

Newhook, Chad, B.P.E. (Acadia), Athletic Therapist

Nill, Blake, B.A. (Concordia), B.Sc. (P.E.), M.Ed. (St. Francis Xavier), Head Coach, Football

Quackenbush, Ross, B.A., B.Ed. (Saint Mary's), Head Coach, Basketball

Stienburg, Trevor, Head Coach, Hockey

Atlantic Canada Centre for Environmental Science

T.B.A., Director

Business Development Centre

Crowell, Eric, B.A. (Dalhousie), M.B.A. (Toronto), C.A., Director

Conference Services

Robinson, Wanda, B.Sc. (Hons.) (Saint Mary's), Manager

MacDonald, Ann, Conference Coordinator

Continuing Education

Sharpe, James F., B.Sc. (Mount Allison), M.A. (Columbia), Ed.D. (O.I.S.E., Toronto), Dean

MacDonald, Linda A., B.A. (Mount Allison), B.Ed. (New Brunswick), M.Ed. (Maine), Associate Director

Andrews, Steven, B.A., B.Ed. (Dalhousie), Director, Executive and Professional Development Programs

Harroun, Heather, B.A. (Saint Mary's), Manager, Summer Sessions and University Preparatory Programs

Development

Hutchinson, Jodi, B.A. (Mount Allison), B.Ed. (St. Francis Xavier), Director of Development

Melanson, Anne C., B.P.R. (Mount Saint Vincent), Campaign Director

Fitzpatrick, Heather M., B.P.R. (Mount Saint Vincent), Manager, Annual Giving

Facilities Management

Schmeisser, Gary H., B.Sc. (Dalhousie), B.E. (Technical University of Nova Scotia), Director

Butler, Barry, B.A. (Saint Mary's), Manager, Technical Services

Fitzpatrick, Heather, B.Sc. (Dalhousie), Coordinator, Office Services

Inkpen, Steve, Manager of Projects and Facilities Planning

Moulaison, Warren, Maintenance Manager

Price-Finn, Shelley, B.Comm. (Saint Mary's), Manager, Custodial Services,

Rodrigue, Clément, Project Planner

Financial Services

Cochrane, Ronald L., B.Comm. (Saint Mary's), C.G.A., Director of Financial Services

Campbell, Judith M., B.A. (Mount Allison), C.M.A., Manager, Accounting

Dubois, Valerie, B.Comm. (Saint Mary's), F.I.C.B., C.P.P., Project Analyst

Harper, Donald, B.Sc. (Saint Mary's), Manager, Bookstore

Hayward, Maureen, B.Comm. (Saint Mary's), C.A., Manager, Treasury

Levangie, Gail, B.Comm. (Saint Mary's), C.P.P., Manager, Procurement

Murtha, Cindy, B.A., B.B.A. (Mount Saint Vincent), C.M.A., Manager, Reporting & Audit

Webb, Kevin, B.Comm. (Saint Mary's), C.M.A., Manager, Financial Planning

Gorsebrook Research Institute

Howell, Colin D., B.A., M.A. (Dalhousie), Ph.D. (Cincinnati), Executive Director

T.B.A., Assistant Executive Director/Research Officer

Human Resources

Squires, Kim, B.A., B.Ed., M.B.A. (Saint Mary's), C.H.P.R., Director

Druhan, Alison, B.B.A. (Mount Saint Vincent), HR Officer

Rose, Janine, B.Comm. (Saint Mary's), HR Officer (Benefits & Compensation)

Boutillier, Debi, B.S.A. (St. Francis Xavier), Assistant

Information Technology Systems and Support

Thompson, Jim, B.Sc. (Dalhousie), M.B.A. (Saint Mary's), C.E.T., Director

Bonoma, Colette, Co-ordinator, ITSS Administration

LeBlanc, Daniel, B.Sc., B.Ed. (St. Francis Xavier), Manager, Desktop Technologies

Rooney, Paul, Manager, Help Desk and Media Services

Sisk, Perry, B.Sc. (Dalhousie), Assistant Director, Management Information Systems

Smith, Steve, Manager, Telecommunications

Institute of Human Values

Monahan, Arthur P., B.A., M.A., Ph.D. (Toronto), L.M.S. (Pontifical Institute of Medieval Studies, Toronto), Director

Institutional Research and Analysis

Lewis, Catherine, B.A. (Queen's), M.B.A. (Saint Mary's), Director

Instructional Development

Bennett, Margaret-Anne, B.A. (Saint Mary's), B.Ed., M.Ed. (Dalhousie), Director

International Activities

Leclaire, Denis, B.A. (Loyola), M.A. in International Affairs (Carleton), Director

Hook, Bronwen, B.Sc. (Southwestern Louisiana), M.Sc. (Laval), Project Manager

Kondali, Zoran, B.A. (Sarajevo), Project Manager

Taylor, Heidi, B.A. (Guelph), C.T.E.S.L. (Carleton), M.Ed. (O.I.S.E.), Program Manager

Woodhouse, Maureen, B.A. (Carleton), M.B.A. (Saint Mary's), Project Manager

Library

Lefebvre, Madeleine, M.L.S., M.A. (Alberta), M.A. (Edinburgh), AALIA, FCLIP, University Librarian

Bentley, Brenda, Coordinator, Library Administration

Clare, Ken, B.A. (King's), Head of Access Services

Cook, Hansel, B.A. (Dalhousie), M.L.I.S. (British Columbia), Archives, Special Collections and Records Librarian

Cook, Robert, B.A. (Hons.) (Wales), M.A. (Lancaster), M.A.

(Saskatchewan), M.L.S. (Dalhousie), Head of Cataloguing Systems

Harrigan, Cindy, B.A., B.Ed. (Saint Mary's), M.L.S. (Dalhousie), Head, Instructional Development

Houlihan, Ron, B.A. (Saint Mary's), M.L.I.S. (Dalhousie), Promotional Services Librarian

Manning, David, Head of Acquisition Services

Thomson, Joyce, B.A., M.L.S. (Dalhousie), Head of User Education

Vaisey, Douglas, B.A. (Trent), M.L.S. (Dalhousie), Head of Reference and Research

Webster, Peter, B.A. (Alberta), M.L.S. (Dalhousie), Head of Information Systems

Wood, Sally, B.A. (Saint Mary's), LL.B., M.L.I.S. (Dalhousie), Head of Database Management

Registrar's/Records Office

Chard, Elizabeth A., B.A. (Hons.), B.Ed., M.A. (Dalhousie), Hon.LL.D. (Saint Thomas), Registrar

Wilson, Murray J., B.A., B.Ed. (Saint Mary's), Associate Registrar

Peters, David, B.Comm. (Saint Mary's), Assistant Registrar: Systems

Dixon, Jenn, B.Sc. (Dalhousie), Information Assistant

Downey, Leslie, B.A., B.A. (Saint Mary's), Information Assistant

Fitzgerald, Juanita, Co-ordinator of Records

Gaudet, Sarah, B.A. Cert. in CRM, (Saint Mary's), Co-ordinator of Registry Services

Jeffries, Donna, Information Assistant

Kaulback, Jenny, B.O.A. (Mount Saint Vincent University), Data Entry Clerk

McKinney, Tara, B.Comm. (Saint Mary's), Secretary to the Registrar

Mahboub, Nassim, B.A. (Saint Mary's), Transcript Secretary

Sawyer, Tia, B.Comm. (Saint Mary's), Information Assistant

Scratch, Sarah, B.A. (Saint Mary's), Business Geographics Dipl. (NSCC), Marine Geomatics Dipl. (NSCC), Secretary to the Registrar

Residence

Fowler, P. Clay, B.A. (Saint Mary's), M.Ed. (Acadia), Director

Kilfoil, Kati, B.Sc. (Hons.) (Dalhousie), Assistant Director

Colburn, Derrick, B.P.E. (Dalhousie), Assistant Director, Residence Security

Scribner, Sam, Assistant Director

Sobey School of Business Advisory Council

Keith, John (Jack) R., Hon. D.Comm. (Saint Mary's), C.M., Chairperson

Security

Promaine, William J., B.A. (Carleton), Manager

Senate Office

T.B.A., Secretary to Senate

Sexual Harassment Office

T.B.A.

Student Recruitment

Wood, Monica, Director, Dip. Community Recreation (Mount Royal College), Therapeutic Recreation, (Arizona State University), BA. (University of Winnipeg), Canadian Securities Institute (Toronto),

Business Admin./Acc. (Success Business College)

Student Services

Hotchkiss, Keith, B.A. (Saint Mary's), Director

Abbott, Barry, B.A. (Saint Mary's), M.Ed. (Dalhousie), Atlantic Centre of Support for Students with Disabilities

Adams, Megan, B.PR. (Mount Saint Vincent), Atlantic Centre of Support for Students with Disabilities

Bagnall, Jane, B.A. (Dalhousie), Atlantic Centre of Support for Students with Disabilities

Bain, Keith, B.Ed. (University of Alberta), Atlantic Centre of Support for Students with Disabilities

Buchanan, Barbara, B.A. (New Brunswick), B.Ed. (St. Thomas), M.Ed. (New Brunswick), Counselling Services

Collins, Jane, R.N., Nurse/Educator

Curran, Colleen, B.Comm. (Saint Mary's), Atlantic Centre of Support for Students with Disabilities

Emberly, Theresa, B.F.A. (NSCAD), B.A. (Saint Mary's), M.Ed. (Acadia), Counselling Services

Everett, Tanya, B.A. Dipl. (NSCC), Atlantic Centre of Support for Students with Disabilities

Fougere, Michelle, B.A. (Saint Mary's), Financial Aid Counsellor

Gibson, Debbie, B.Comm. (Saint Mary's), Student Employment Centre

Grace, Christopher, B.A. (Saint Mary's), Atlantic Centre of Support for Students with Disabilities

Hemeon, Mary, B.A. (Saint Mary's), Secretary

Jeffrey, Donald, B.A., Cert. of CRM (Saint Mary's), M.Ed. (Toronto), Counselling Services

King, Anita, B.A. (Saint Mary's), Financial Aid Assistant

Landry, Sharon, B.A. (Saint Mary's), Secretary

Le Blanc, Clare, B.A. (University College of Cape Breton), Atlantic Centre of Support for Students with Disabilities

Leitch, David, B.A., B.Ed., B.Sc., M.A., Ph.D. (Dalhousie), Director, Atlantic Centre for Support of Students with Disabilities

Lelievre, Madeleine, CCC.B.Sc. (Hons.) (University of East Anglia), Dip. Hort. Sci. (Massey University), M.Ed. (Counselling) (Acadia),

Atlantic Centre of Support for Students with Disabilities

Lewington, Danielle, M.D., B.Sc. (Ottawa), Physician

Lewington, Richard, M.D., B.Sc. (British Columbia), Physician

MacEachern, Mary Ellen, B.A. (Kings), Manager, Student Employment Centre and Coordinator, Co-operative Education

MacMillan, Patricia, M.A. (Dalhousie), Atlantic Centre of Support for Students with Disabilities

Morris, Sarah, B.Sc., M.Ed. (Dalhousie), Co-ordinator, Counselling Services

Mulvihill, Rev. Con, S.J., B.A. (Toronto), M.A. (Northwestern), M.Div. (Toronto), Chaplain

Noel, Stephen, B.A. (Hons.) (Saint Mary's), M.Ed. Counselling (Acadia), Student Employment Centre

Robb, Alana, B.Sc.H.E. (Mount Allison), M.H.E. (Mount Saint Vincent), International Student Advisor

Rodriguez, Ysaac, B.Sc. (University of Santo Domingo, Dominican Republic), Program Officer

Topshee, Mary, B.A. (Saint Mary's), Secretary

Vess, Carolyn, B.A. (Saint Mary's), Secretary

Whalen, Karen, Secretary

Wong, Loriann, B.Sc., M.D. (Dalhousie), Physician

The Teaching English as a Second Language Centre

Sargent, Maureen, B.Ed. (University of Swaziland), M.Ed. (Saint Mary's), Director

Keevil, Harrold, Diane, B.A. (Carleton), C.T.E.S.L. (Carleton), Assistant Director

Curry, Pamela, B.Comm. (Saint Mary's), Registration/Financial Manager

Hillaby, Sharron, B.A. (Mt. Saint Vincent), Accommodation Coordinator

MacLean, Kathryn, B.A. (St. Francis Xavier), M.Ed. (Saint Mary's), Senior Instructor

MacPherson, Margaret, B.Ed. (Concordia), Corporate Group Training Coordinator

MacSween, Norma, B.M.U.S.A. (Western Ontario), M.A. (Carleton), M.Ed. (Saint Mary's), Senior Instructor

The Writing Centre

Saunders, Patricia, B.A. (Hons.) (Trent), M.A. (Rutgers), Director

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